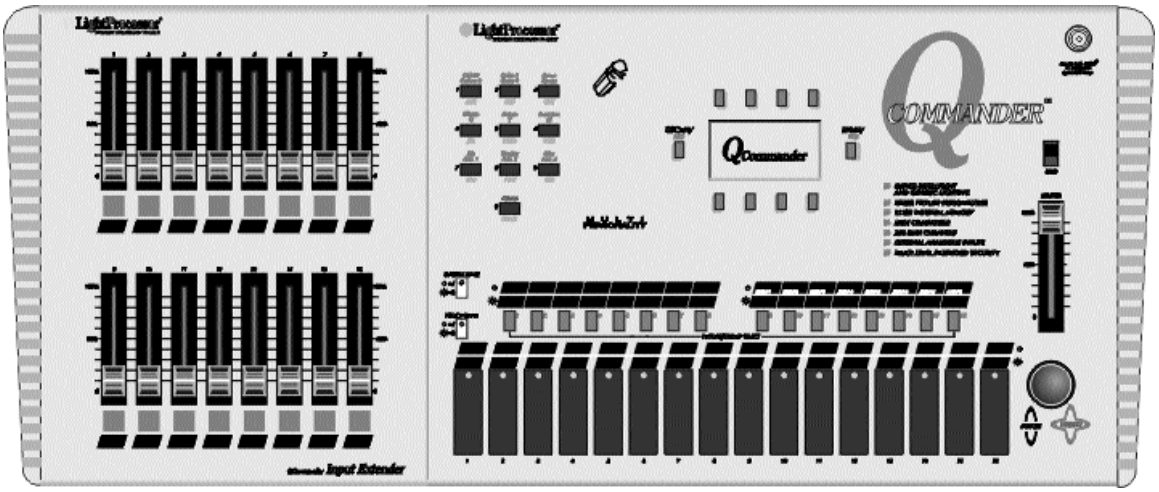
QCommander

Commander QFIVE TWELVE

INSTALLATION AND OPERATING MANUAL
(All versions)



LightProcessor®

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Thank you for buying a LightProcessor product. To obtain the best results, please read this instruction manual carefully. Further copies of this manual may be obtained from our website at www.lightprocessor.com/paradimemanual/en

GB

Nous vous remercions d'avoir acheté un produit LightProcessor. Pour obtenir les meilleurs résultats, nous vous prions de bien vouloir lire attentivement ce manuel. Vous pouvez obtenir ce manuel en français de notre site internet à www.lightprocessor.com/paradimemanual/fr

F

Wir bedanken uns für die Wahl eines LightProcessor-Produktes. Für eine reibungslose Bedienung lesen Sie sorgfältig dieses Handbuch. Dieses Handbuch in deutscher Sprache ist von unserem Website erhältlich. www.lightprocessor.com/paradimemanual/de

D

Le damos las gracias que Ud. ha comprado un producto de LightProcessor. Para los mejores resultados lea cuidadosamente este manual. Ud. puede obtener este manual en español de nuestro sitio internet a www.lightprocessor.com/paradimemanual/es

E

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GENERAL INSTRUCTIONS

Read the instructions in this handbook carefully, as they give important information regarding safety during installation and use. Be sure to keep this manual with the product for ease of future reference. If the product is sold or given to another operator, make certain that they also receive the manual.

This product is not intended for home use.
After removing the packaging, check that the product is not damaged in any way. If in doubt, do not use it.
Contact an authorised LightProcessor distributor.
Packaging material (plastic bags, etc.) must not be left within the reach of children, as it can be dangerous.
The product must only be operated by adults. Do not allow children to tamper or play with it.
This product must be installed by a qualified electrician.

NEVER USE THE PRODUCT UNDER THE FOLLOWING CONDITIONS:-

In places subject to excessive humidity
In places subject to vibrations or bumps
In places with an ambient temperature in excess of 30°C or less than 0°C
Protect the product from excessive dryness or humidity (ideal conditions are between 35% and 80%)
Do not dismantle or modify the product
Ensure that no liquids or metal objects enter the product
Should any liquid be spilled on the product, disconnect the power supply immediately
In the event of serious operating problems stop using the product immediately and either contact the nearest LightProcessor distributor for assistance or contact the manufacturer directly.
Never try to repair the product yourself. Repairs or modification could cause damage or faulty operation. Contact your nearest LightProcessor dealer.
When carrying out any work, always comply (particularly regarding safety) with all regulations in force in the country in which the product is being used.

256- AND 512-CHANNEL VERSIONS

This manual applies equally to both 256- and 512-channel versions of the QCommander. Where there are actual differences in specification, these are indicated as appropriate.

There are very few differences in the method of operation of the two types and, for the sake of clarity and simplicity, the text and diagrams deal principally with the 256-channel version with differing values applying to the 512-channel versions being shown in square brackets [ ].

ACCESSORIES PACKED WITH THE PRODUCT

Power Supply unit and cable
Instruction Manual
Video Cassette - Introduction to QCommander

OPTIONAL EXTRAS

PCMCIA Card - 512Kb or 1Mb (as appropriate to the model)
Working Light - 30cm. or 45cm.
Rackmount Brackets

RELATED PRODUCT

Replica QCommander Store and Backup unit. See page 77

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GENERAL PRINCIPLES

The QCommander is a lighting controller designed to control most types of intelligent and generic lighting that will be encountered in entertainment venues today. It has the following capacities:

256-Channel Versions	512-Channel Versions
256 DMX output channels	**512 DMX output channels**
512 scenes	**512 scenes**
64 chases of 64 steps	**64 chases of 64 steps**
16 groups	**16 groups**
16 intelligent fixtures	**32 intelligent fixtures**
29 channels (max.) per fixture	**29 channels (max.) per fixture**
8 Looks (snapshot memories)	**8 Looks (snapshot memories)**
8 shows of 500 events	**8 shows of 500 events**
64 playback keys	**64 playback keys**
16 channel analogue input	**16 channel analogue input**

SetUp

Before making programs it will be necessary to configure the QCommander in respect of the lighting being used and of user preferences. These procedures are discussed in Section ll, Setup.

Menu Structure

The programming interface is a backlit LCD display, showing multi-level menus. All valid options within a menu are displayed and appear as labels to eight push buttons (softkeys) above and below the display. Where necessary, a menu choice is confirmed by pressing the STORE/YES button to the right of the display; a menu choice is cancelled by pressing the ESCAPE/NO button to the left of the display. See the chart at the beginning of this manual for an overview of the menu structure.

Intelligent Lights

For the purposes of the QCommander an intelligent light (fixture) may be defined as any lighting projector which has multiple channels and for which the QCommander contains a personality. The QCommander 256 can control up to 16 such fixtures with separate DMX addresses and with differing personalities. The QCommander 512 can control up to 32. If required, several identical fixtures may be assigned to one DMX start address and may be considered as one out of the sixteen [thirty-two].

Fixture Personalities

When working with fixtures, it is necessary to software install them through the setup menu, so that the QCommander knows the personalities of the fixtures concerned, their position in the DMX chain and which button calls which fixture. A library of fixture personalities exists within the QCommander. This library is updated periodically and users may obtain updates from their dealer or directly from LightProcessor.

Scenes and Chases

The programming structure works in this way. Fixtures are programmed into positional settings called scenes; a number of scenes is then programmed into a sequence called a chase. The chase, alone or in combination with other chases and effects is subsequently assigned to an output key from which it may be called up or run.

Generic Lights

Scenes may also be constructed for use with generic lighting. They may then be recalled from output keys as static scenes or they may first be chained together into a scene chase. Alternatively a scene may be designated a zone where the lamps run a pattern through the selected channels. Sound-to-light scenes may also be programmed.

Looks

A snapshot of the current outputs may be captured as what we call a *look*. The look is then assigned to any available output key. This feature must first be enabled via the system options utility.

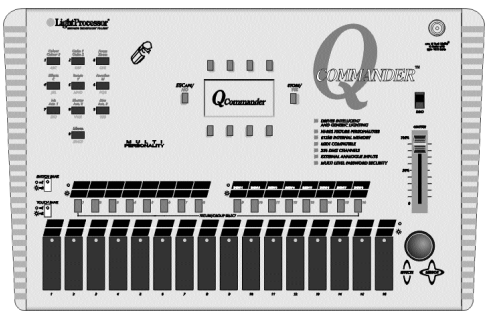
Shows

You may also program a show. A show is a timed sequence of key presses, comprising scenes, zones, chases, individual channels and looks. It may be programmed in real time by storing actual events as they happen. You may subsequently edit the list of events and their desired run times.

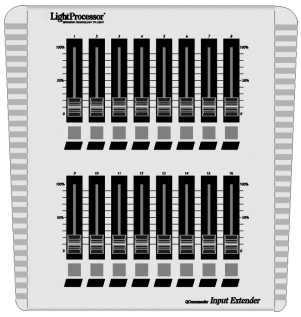
Memory Card

The QCommander has a PCMCIA memory card slot which allows you to save all your programming to a suitable memory card. Conversely you may upload from a memory card into the QCommander. New versions of the operating system and new intelligent fixture personalities may be loaded via a memory card.

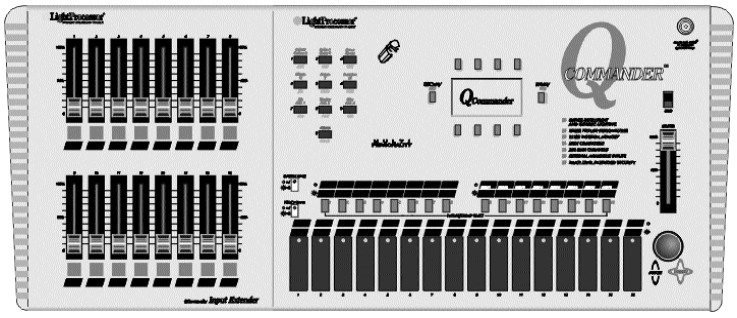
FRONT PANEL LAYOUT AND FUNCTIONS



QCommander



Optional Input Extender. Connects by cable via the analogue connector.



QCommander with factory-fitted input extender. Not available as a retro-fit option.

Display and softkeys, STORE/YES and ESCAPE/NO buttons
This is the heart of the programming interface. The eight buttons, top and bottom of the display, change their function according to the task being executed at the time. The display indicates the current function of each button. The STORE/YES button is used to confirm a selection or action. The ESCAPE/NO button is generally used to abort or cancel an operation .

Alpha/Numeric pad
Any item that you can program can be given a name. This keypad is used to write names in the display.

When you create effects with intelligent fixtures, the buttons in this keypad represent the various functions of the fixture. In some instances numeric values may be entered using this keypad, although the trackball is more often used.

Push buttons
There are sixteen illuminated push buttons. During programming they represent the sixteen intelligent fixtures that may be driven by the QCommander 256. In the case of the QCommander 512 the *switch bank page selector button* is used to provide access to a further sixteen fixtures on page 2, making a total of 32.

The push buttons may also be programmed to contain pre-defined groups of channels and subsequently during scene programming to call these groups into a scene.

They may also be used as output keys. In RUN mode (playback) they are used to recall those effects programmed into them. In this context they may be set to latch, flash, swap or solo.

Touchkeys
There are sixteen illuminated touchkeys. These may be set to latch, flash, swap or solo. They may be used during playback as output keys to recall those effects programmed into them.

Page buttons
There are two pages of push buttons and two pages of touchkeys, so the physical number of keys is effectively doubled in both cases, making a total of 64 virtual output keys.

The QCommander 512 also uses the page selector button during the setup of fixtures. Fixtures 1-16 are located on page 1 and fixtures 17-32 on page 2.

Trackball
The trackball is used during programming for all functions that require the setting of a level. When applied to mirror movement, it operates in both vertical and horizontal planes; for all other effects it operates only in the vertical plane.

When using the *live* facility in RUN mode, the selected fixture attribute is adjustable live from the trackball.

Master
The master slider controls the overall output of all channels on the desk, for which the type has been set as *dimmer,* regardless of their HTP/LTP status. Channels not specifically set as *dimmer* will not be affected. Any channel output level is multiplied by the current level of the master to give its output level. When in RUN mode the level of the Master is shown by a band of asterisks running horizontally across the display. The master slider can be enabled/ disabled independently for each channel.

Blackout switch
Operation of the blackout switch takes all *dimmer* and *shutter* channel levels instantly to zero, regardless of their HTP/LTP status. If used in conjunction with button 0 on the alpha numeric keypad, then ALL channel levels will be set to 0 and all key commands are cancelled. When in RUN mode a blackout is indicated by the word 'Blackout' above the asterisks indicating the level of the Master. The blackout switch can be enabled/disabled independently for each channel.

Light socket
This BNC-type socket provides a drive voltage for an operating light.

REAR PANEL LAYOUT AND FUNCTIONS

Power supply input
The pin connections are shown on the rear of the unit and on page 72 of this manual. Use only a genuine LightProcessor QRange power supply unit (PSU).

Card slot
The memory card is a PCMCIA type 1 card, 512Kb SRAM for the QCommander 256 and 1Mb for the QCommander 512. Card operations are dealt with in section V.
You can use memory cards to:-
(a) Update the operating system
(b) Upload new intelligent fixture personalities
(c) Save and upload programming

DMX output
The DMX output connector is a 5-pin female XLR, wired to the standard USITT DMX1990 configuration. See page 72.

Auxiliary Control Input

The pin connections are shown on the rear of the unit and in the section, Connections, on page 72. This connector allows the connection of external analogue devices such as the LightProcessor QCommander Input Extender.

Audio Input

Chases and zones may be run to one of the audio regimes, either via the internal microphone or via audio input through the jack socket. See page 72. Inserting a jack plug disables the internal microphone. Alternatively scenes may to set to respond to sound input by selecting the type *sound-to-light*.

LCD Display Contrast Adjuster

A rotary display contrast adjustment is provided to compensate for varying viewing angles and lighting levels.

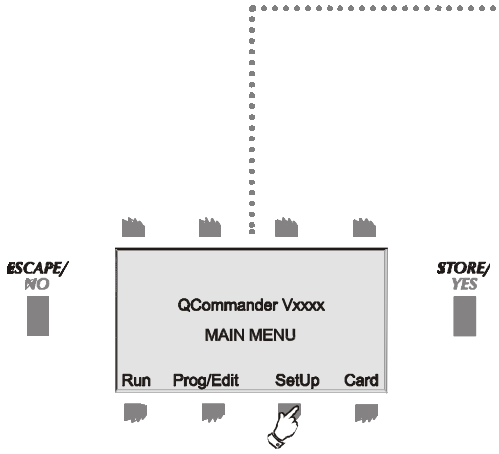
MIDI

The MIDI strategy is for key actions to respond to *note on* and *note off* messages. The QCommander can be set to send *note on* and *note off* messages corresponding to key presses. See page 73.

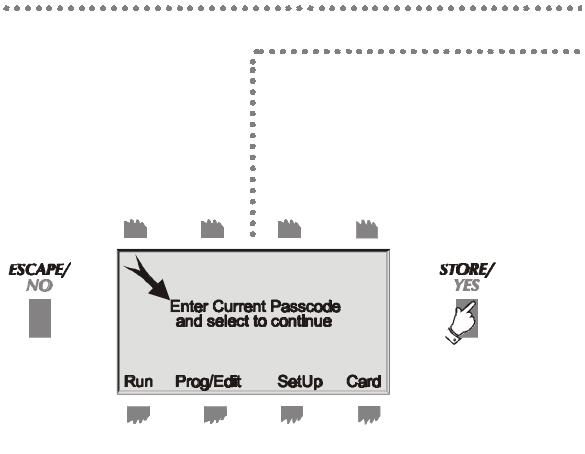
Before you can use the QCommander there are several features that must be configured via the SetUp menu. When you switch on the QCommander, the first screen you see will show several options, one of which is SetUp. At other times SetUp may be accessed by pressing Escape when the display shows RUN MODE.

SETUP PASSCODES

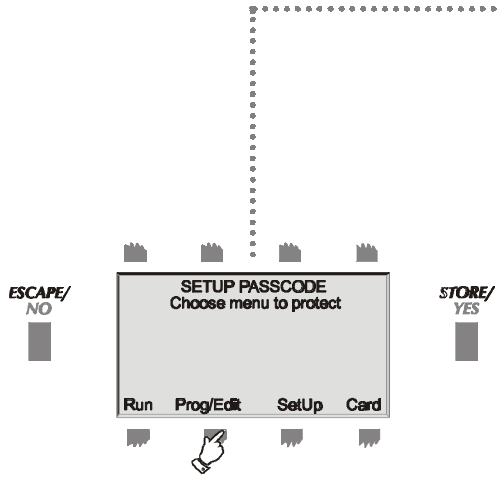
You may set passcodes to protect the Prog/Edit menu, the Setup menu and the Card menu. The code to the setup menu is the master and has global access. When your QCommander is delivered, it will be set up with the passcode 0000 and all menu levels are open. Setting up the passcode with anything other than 0000 invokes the security system. Any security system in place may be cancelled by re-instating the passcode 0000.



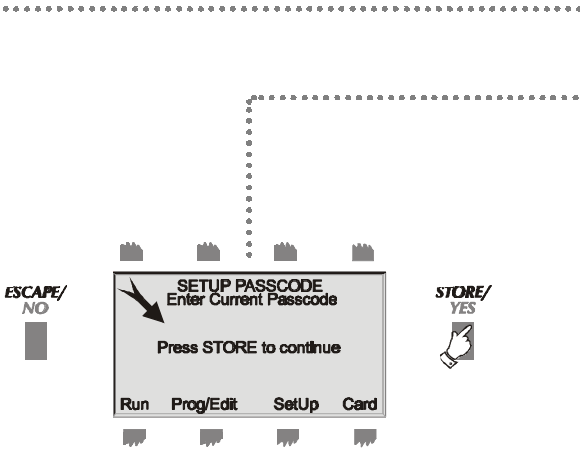
1. Press SetUp



2. You must know the current passcode protecting the menu, in order to access the menu.



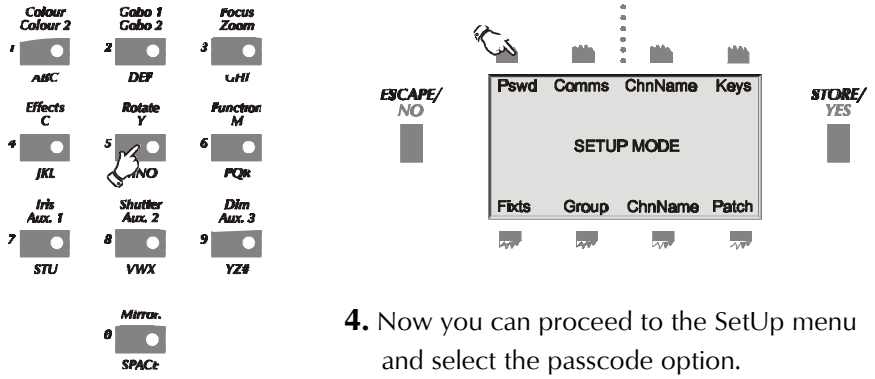
5. Select one of the three menus to protect. You may choose a different password for each menu.



6. Enter the CURRENT passcode for the selected menu, using the numeric keypad, like you did in step 3.

TIP! Since there are three menus to protect, there can be three different passcodes. Make them unforgettable or have them written down somewhere where you can get access to them. Neither uploading a new operating system nor erasing *everything* in the system options menu erases current passcodes.

!!! ***All the instruction sequences in this manual start from the MAIN MENU screen. If you are in RUN mode, press ESCAPE to get to the MAIN MENU.***

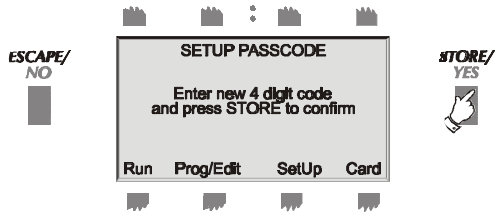


4. Now you can proceed to the SetUp menu and select the passcode option.

3. Use the numeric keypad to enter the current 4-digit code. Press YES.

Press Setup
Enter current code
Press Pswd

Select menu to protect
Enter current code
Enter new code

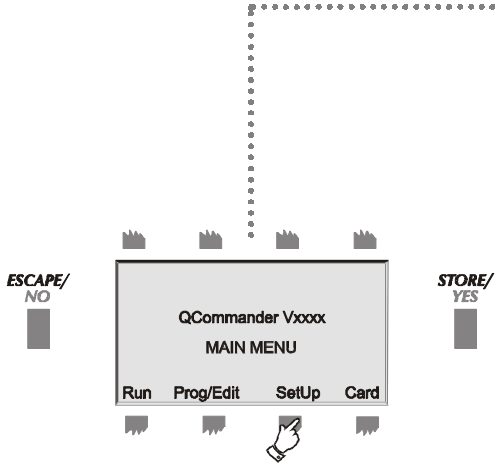


7. Enter the NEW passcode, using the numeric keypad, like you did in step 3 and press STORE.

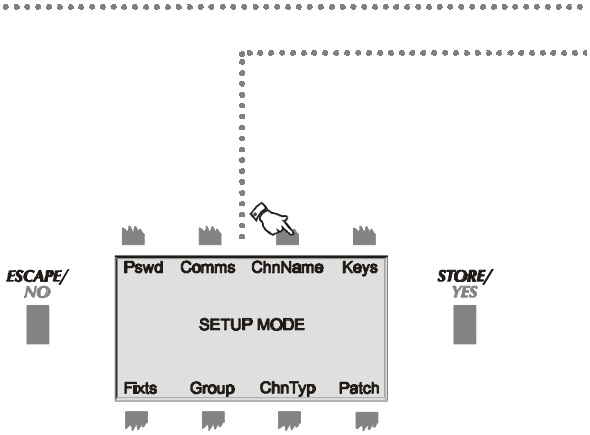
You have now looped to step 5. Protect another menu or press ESCAPE to go back a level.

SETUP CHANNEL NAMES

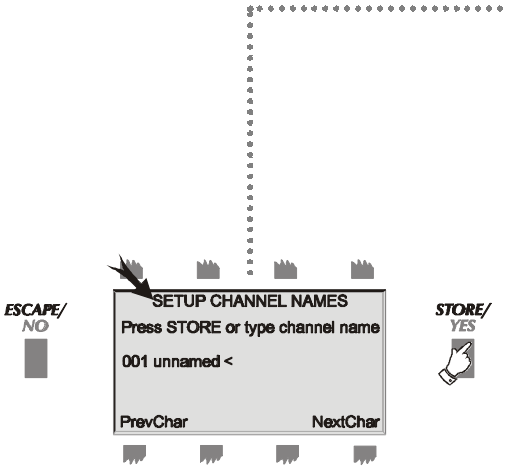
For ease of reference channels may be named. Setup channel names like this.



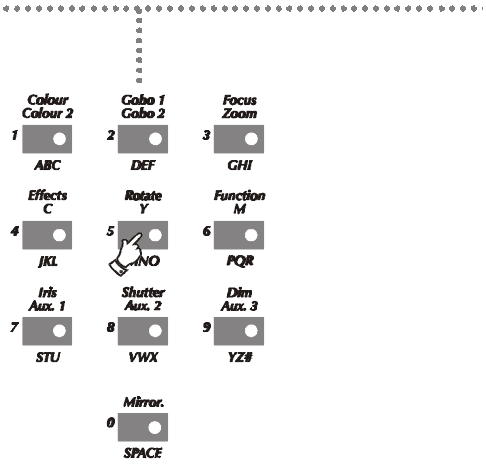
1. Press SetUp. Enter the SetUp passcode, if active.



2. Press ChnName.



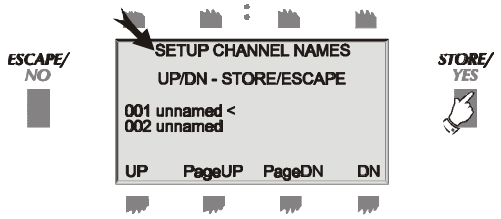
4. Enter or edit the channel name as shown in step 5.



5. Use the alpha-numeric pad to enter a new name or edit the existing one. Press STORE when finished.You have now looped back to step no. 3 and can scroll to another channel or press ESCAPE to go backwards through the menu levels.

TIP!

Channels used by fixtures are named automatically during the setup fixtures routine. The automatically-assigned names may not be overwritten. If you are using fixtures, install them first.



3. Scroll through the channels list, using the UP and DOWN buttons. Press STORE to select a channel.

Press SetUp
Press ChnName
Scroll to a channel and press STORE
Type a name and press STORE

SETUP KEYS

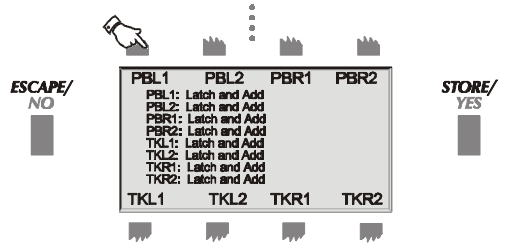
Both the push buttons and the touchkeys may be configured according to the following options. Both the buttons and the keys are grouped left and right over two pages. A selected attribute applies to all keys in the group.

1. Press SetUp. Enter the passcode, if prompted.

2. Press Keys.

Note these abbreviations for the various button groups:-

PBL1 = Push buttons, page 1, left
PBL2 = Push buttons, page 2, left
PBR1 = Push buttons, page 1, right
PBR2 = Push buttons, page 2, right
TKL1 = Touchkeys, page 1, left
TKL2 = Touchkeys, page 2, left
TKR1 = Touchkeys, page 1, right
TKR2 = Touchkeys, page 2, right



3. Select a group of keys to setup. Bump through the options to make your selection. Repeat this procedure for other groups. Press STORE and return to step 2.

Press SetUp
Press Keys
Select a group of keys
Bump to the desired option
Press STORE when finished

These are the available functional modes. Except where the function is *Global,* it applies only within the group:-

Latch and Add - A pressed key remains *switched on* until pressed a second time. All keys may be *switched on* at any one time.

Flash and Add - A pressed key remains *switched on* only while it is pressed. All keys may be *switched on* at any one time.

Latch and Swap - A pressed key remains *switched on* until pressed a second time. Only one key may be *switched on* at any one time; pressing a second key switches off the first one.

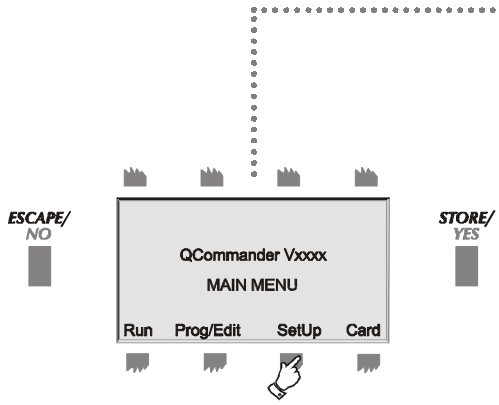
Flash and Swap - A pressed key remains *switched on* only while it is pressed. Only one key may be *switched on* at any one time; pressing a second key switches off the first one.

Latch and Solo, Global - A pressed key remains *switched on* until pressed a second time. A solo key has no effect on keys already *switched on*. When a solo key is switched on, all keys are disabled until the solo key is *switched off*.

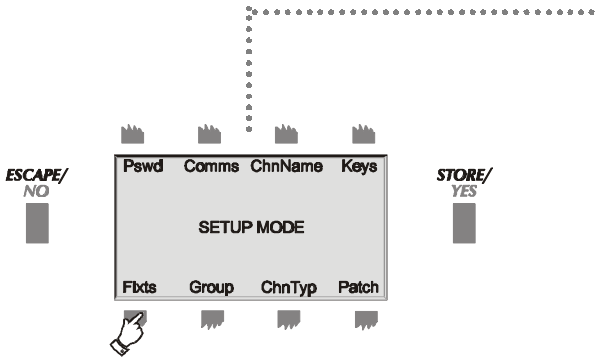
Flash and Solo, Global - A pressed key remains *switched on* only while it is pressed. A solo key has no effect on keys already *switched on*. When a solo key is switched, all keys are disabled until the solo key is *switched off*.

SETUP FIXTURES

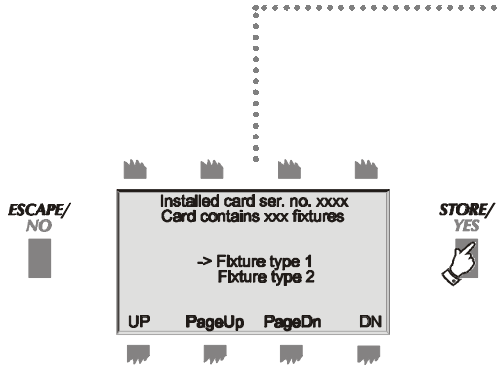
The QCommander contains a library of a great number of intelligent fixture personalities. Before you can use a fixture, it must first be assigned a personality and a DMX start address.



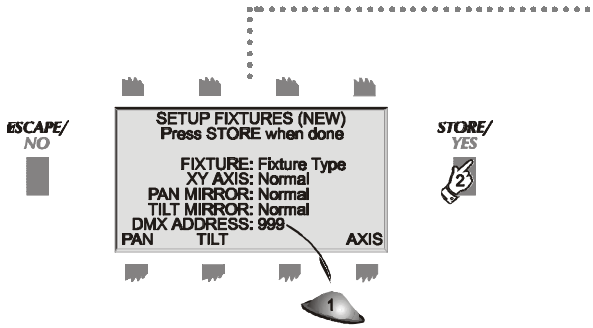
1. Press SetUp. Enter the passcode, if prompted.



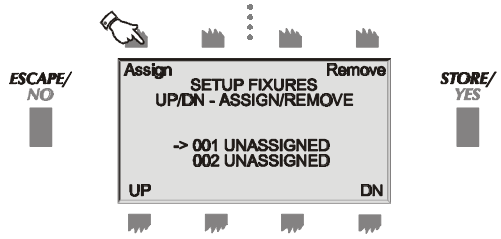
2. Press Fixts. The QCommander 256 [512] can control up to 16 [32] fixtures. They will appear in the display as nos. 01-16 [[01-32] and initially have no personality, i.e. they are UNASSIGNED. You will next select a personality for each fixture you wish to control.



4. Scroll to the fixture type you want to use. Press STORE.



5. The QCommander suggests a DMX start address. Press STORE to accept the suggestion or use the trackball or numeric keypad to select a different one. Press STORE. You are now back at step no. 3. Repeat steps 3 to 5 to assign the next fixture or press ESCAPE to go backwards through the menu levels. If you choose an address that conflicts with a previous selection, i.e. you have overlapping channel addresses, then the word overlap appears in the display in step 5 beside the caption DMX ADDRESS to indicate that the address is invalid. Pressing STORE causes the message 'ASSIGNMENT ERROR' to be displayed in step 3 alongside the fixture number.



3. Scroll to the fixture number you want to set up and press ASSIGN.

If you attempt to assign a fixture that is already assigned, you may adjust the PAN, TILT and AXIS but not the DMX address. To change the DMX address, you must first remove the fixture and then re-assign it with the new address.

Press SetUp
Press Fixts
Select from 1-16 and press ASSIGN
Select fixture type and press STORE
Set DMX address and press STORE

When setting up your fixtures you will need to make certain DIP switch selections on the fixture itself. Often there are two DIP switches, one for the personality and one for the DMX start address setting.

The main personality setting will often involve a choice between some other type of protocol and DMX. Always choose DMX when working with the QCommander. Other available settings will vary according to the model and brand of fixture.

You will need to set a DMX start address for each fixture on the other DIP switches. These addresses must correspond to the addresses you set on the QCommander. Please refer to the manual for your fixtures for instructions.

Many intelligent fixture instruction manuals also provide a table, showing how to set the DIP switches for any required address.

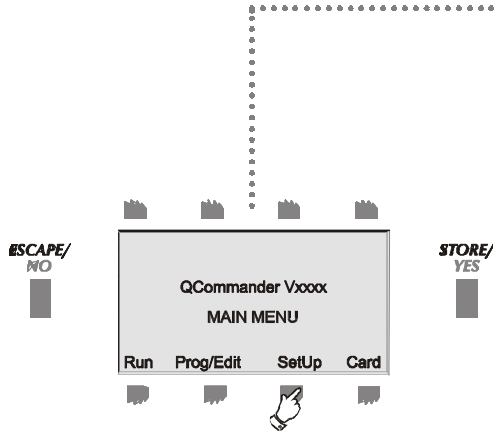
TIP!

It is easy to become confused when working with fixtures that are not all the same way up or facing in the same direction. The QCommander helps you here. The PAN and TILT options in step 5 above allow you to change left to right and right to left, so that you can work on opposite sides of a room simultaneously.

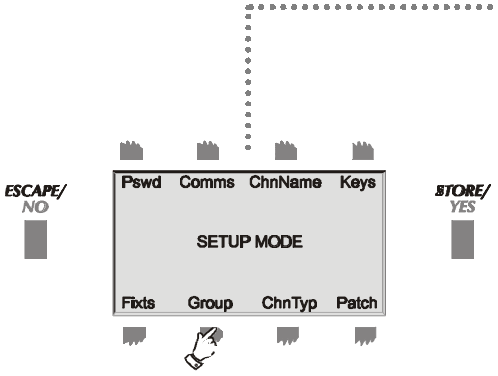
AXIS allows you to switch horizontal and vertical and is useful when working with fixtures installed horizontally instead of vertically.

SET UP GROUPS

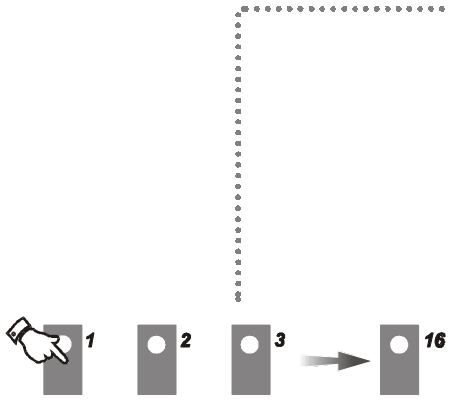
Where you need to use certain channels together on a regular basis, you will find it easier and quicker to call them into a scene as one group, rather than many individual channels. This routine shows you how to define the channels in a group. You may define a total of 16 groups.



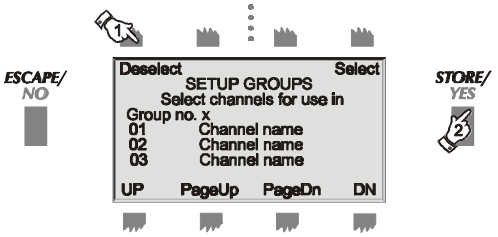
1. Press SetUp. Enter the SetUp passcode, if prompted.



2. Press Groups



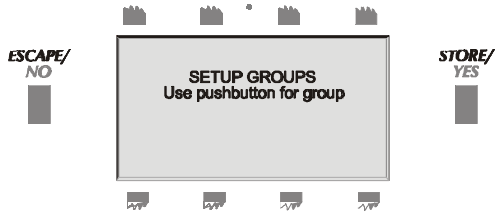
4. Press one of the sixteen illuminated push buttons. This is where the groups will reside.



5. Scroll through the channels and assign /remove channels, using the appropriate button. Selected (assigned) channels show *. During programming selected channels are output at full brightness.

Press STORE when you have finished selecting channels for this group.

TIP! When you call a group into a scene, all channels will be set at full brightness. Having called the group you can then change the level of individual channels by selecting channels in the scene programming menu.



3. Select the group to setup.
NOTE: Setting up one of the 16 groups for a second time will result in the original setup being overwritten.

Press SetUp
Press Groups
Press button for Group
Select channels to include
Press STORE when finished

SETUP CHANNEL TYPES

Just as each channel may be named, it may also be given certain characteristics to determine how it will respond to a control signal:-

what function is assigned to it.
whether the channel may be faded, switched or snapped.
whether it works HTP, LTP or is permanently on.
whether it responds to the DBO switch, the Master fader, both or neither.

When the QCommander is first switched on, all channels are set by default to type = dimmer/DBO, mode = fade and output = HTP.

The Attributes

All channels are of the type DIMMER by default. DIMMER channels are subject to the MASTER FADER and to the blackout switch. When you set up intelligent lights (fixtures), this type will be changed automatically to MIRROR X, COLOUR, GOBO, etc., as appropriate. These channels are not subject to the master but the dimmer channel of an intelligent light will remain typed as a DIMMER.

TRUE/INVERT

You will usually require a channel to be fully off at DMX value 0 and fully on at 255. By selecting Invert you can reverse the channel s functionality, so that DMX value 0 is fully on and 255 is off. Note that some intelligent lights have their shutter fully closed at 255. The QCommander sets shutters to 0 at the end of a chase: in such a case you would set the channel type True/Invert to Invert.

DBO/No DBO

An HTP dimmer channel which is DBO is subject to the master slider and the DBO switch.
An HTP dimmer channel which is NoDBO will respond to the Master slider only.
An HTP non-dimmer channel which is DBO will respond to the DBO switch only.
An HTP non-dimmer channel which is NoDBO will respond to neither the Master slider nor the DBO switch.
An LTP dimmer channel which is DBO is subject to the DBO switch only.
An LTP dimmer channel which is NoDBO will respond to neither the Master slider nor the DBO switch.
An LTP non-dimmer channel which is DBO will respond to the DBO switch only.
An LTP non-dimmer channel which is NoDBO will respond to neither the Master slider nor the DBO switch.

To understand why the above is important, consider this situation. The QCommander has the facilities to program 16 moving lights by refering to their pre-installed personalities and picking up each attribute in turn from the alphanumeric keypad. You can install additional moving lights and program them channel by channel, as you would have to do on a less-advanced desk.

Let us imagine that a fixture you are installing by this method has no dimmer channel and that dimming is effected by means of the shutter channel. The correct output type for most moving light channels is LTP (and the mode should be fade or snap) but if the shutter channel is left as LTP, the shutters will not come down at the end of a chase. To cure this problem the shutter channel therefore needs to be set to HTP. It also needs to be set to dimmer/DBO, in order that the shutter responds to the DBO switch and the Master slider.

MODE

The channel mode is either FADEing, SWITCHing or SNAPping. FADE channels may move from any one level to another at any speed that you set. An example of FADE channels would be intelligent fixture mirror channels. SNAP channels may move from any one level to another but at the maximum speed allowed by the fixture. Intelligent fixture colour/gobo wheels are normally SNAP channels. SWITCH channels are either on or off. Channels connected to a switching power pack would be set to SWITCH mode.

OUTPUT

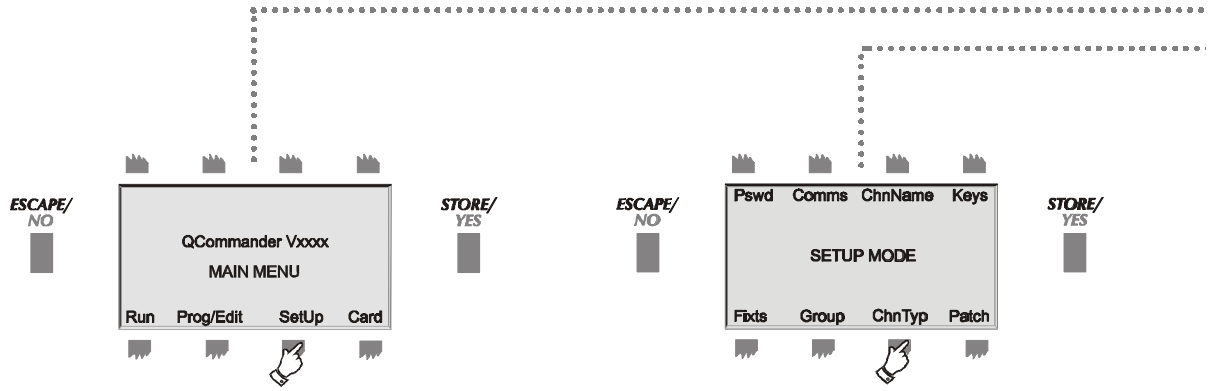
Outputs are either LTP, HTP or PERM. A channel can only output one level at any one time. If it receives more than one output command, which one should it choose to obey? LTP, HTP and PERM lays down the rules for this situation, following conventions established for various types of device.

LTP channels respond to the latest command received. Most intelligent light channels are customarily set to LTP, allowing, for example, overlayed colour/gobo information, hence *last takes precedence*, or LTP.

HTP channels respond to the highest level instruction received. Such a setting is appropriate for intelligent fixture dimmer channels as mentioned above and also for dimming power packs. If two scenes are output to the same channels, it will be the highest level signal in each channel that will be obeyed.

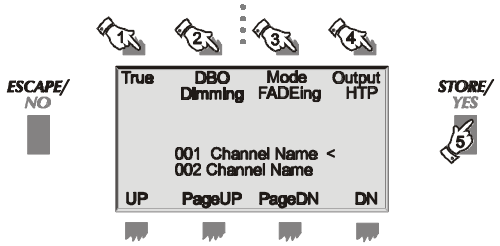
PERM channels remain on, even when a general blackout is in force. This is to cater for those lamp types which need to cool when switched off before they can be switched on again. The PERM output is also suitable for colour changer lamps, while the changing mechanism would be set to LTP.

SETUP CHANNEL TYPES



1. Press SetUp. Enter the setup menu passcode, if prompted.

2. Press ChnTyp.



Press SetUp
Press ChnTyp
Set the attributes
Press STORE

3. Scroll to the desired channel and adjust the attributes. Then press ESCAPE. See the notes on the preceding pages for an explanation of the attributes.

SETUP PATCH - THE INPUT EXTENDER

The QCommander allows you to patch various types of effect to an external control device, usually with faders, so that such effects may be faded in and out or set at varying levels and not just switched on and off. The QCommander lets you make 16 of these patches.

LightProcessor produces the QCommander Input Extender specifically for this purpose. Your QCommander may have been delivered complete with an Input Extender already fitted. If not, it is still possible to add one as a separate unit, connected via a data cable supplied with the Input Extender. Contact your dealer for details. In both cases power comes from the QCommander and no further external power source is required to drive the Input Extender.

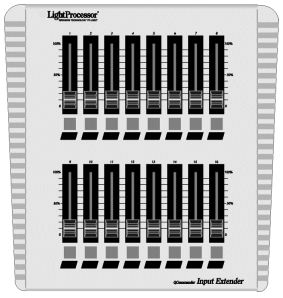
Alternatively, you may use any lighting desk giving a 0-10V analogue output. Make a suitable cable to connect 16 desk channels to the QCommander s auxiliary control input (pin connections detailed below). Note that the desk must be powered in the usual way and **not** from the QCommander. Therefore, when you make your cable, do **not** connect pins 14 and 15 at the QCommander end.

Using programs you have already made you may assign to a fader :-
- a scene,
- a chase,
- a channel,
- the contents of an output key.

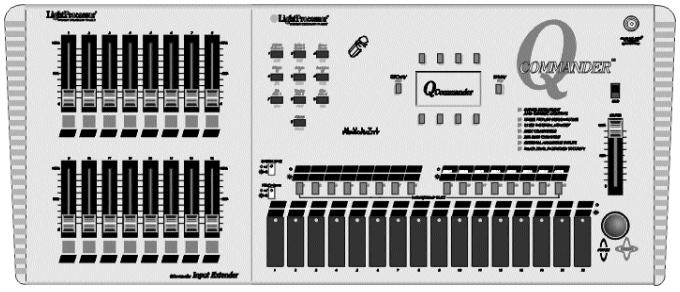
You may elect to patch all channels of a chosen scene to the fader or just the HTP channels; this allows the dimming up/down of moving lights without affecting LTP channels, such as mirrors and colour wheels. When patching chases, only HTP channels respond to the fader, in order that the fader does not interfere with mirror movement, colour wheels etc.

The patch is programmed via the QCommander s SetUp menu as detailed below.

Using a fader while you are In RUN MODE will cause the patched effect to be sent to the outputs.

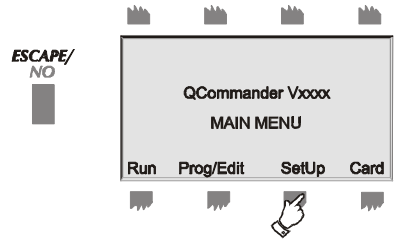


QCommander Input Extender

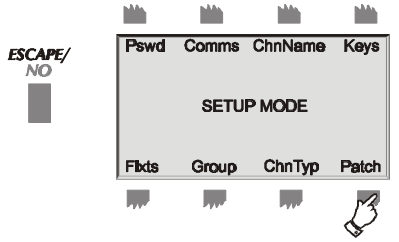


QCommander with fitted Input Extender

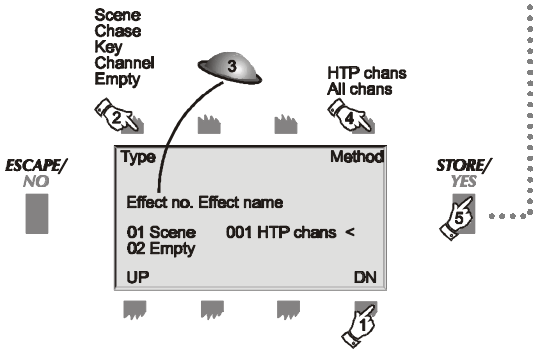
TIP! When a scene is patched to a slider, a copy of the scene is made and and assigned to a memory of its own. When you edit the original scene, the patched scene will not be updated. You must make the patch again to update it.



1. Press SetUp



2. Press Patch.



3. Scroll to one of the 16 available patches.

Select the effect TYPE you want to use (scene, chase, et.c.) and then use the trackball to scroll through the scene list (chase list et.c.). to select the item to patch.

Use the METHOD button to select a patch of all channels within the effect or just the HTP channels.

Press STORE when finished.

NOTE: To patch a *moving zone*, you choose the type scene ; see Programming Scenes - Generic Lighting.

Press SetUp
Press Patch
Choose Type, Item, Method and press STORE

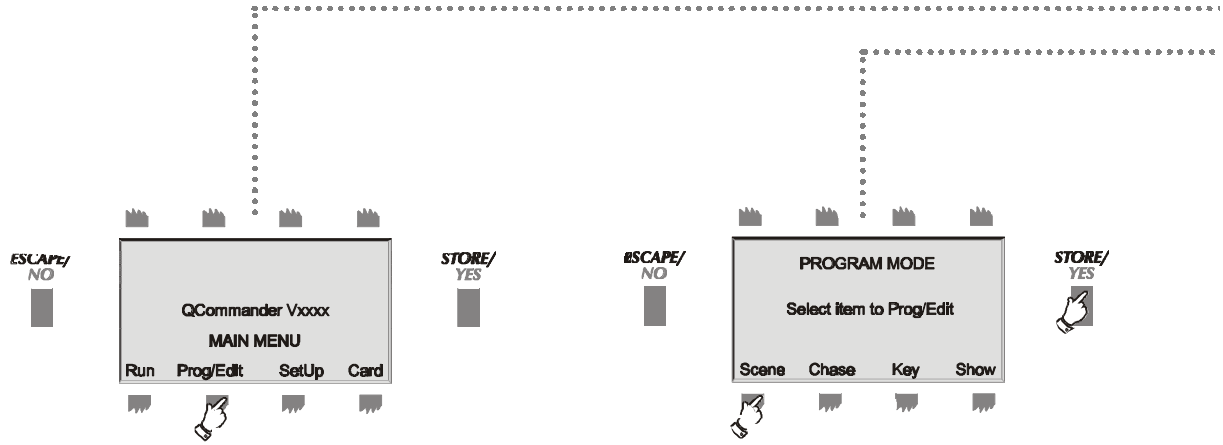
PROGRAMMING SCENES - AN OVERVIEW

All output is made from the push buttons and the touchkeys. The object of programming is to create effects and then to load those effects on to the push buttons and the touchkeys for output. The basic building unit is the channel. Channels may be loaded directly on to output keys or they may be combined into scenes. All 256 [512]channels are freely programmable and none are dedicated to any specific function.

Scenes may be constructed in two ways:-
(A) We can use fixtures, which may otherwise be called moving lights, intelligent lights or scanners. To build this type of scene, the programmer selects one or more of the sixteen fixtures available and set up as previously described. Calling up a fixture makes the corresponding channels available by selection of an attribute on the alpha-numeric keypad and then adjustment of the level using the trackball. After adjustment of the various fixture channels the scene is stored. A number of such scenes may be built into a sequence which we call a chase. Chase programming is dealt with later on.

(B) Scenes using other types of device require programming in two stages. Firstly, the channels to be included in the scene need to be defined. They can be called up individually or by calling up a

(A) PROGRAMMING A SCENE WITH MOVING LIGHTS



1. Press Prog/Edit

2. Press Scene

TIP! You have 512 scene memories at your disposal. Keep your different scene types in separate areas and so avoid confusion. When programming/editing scenes a long way down the list instead of repeatedly pressing PageDN, you can use the numeric keypad and enter the number of the scene you wish to use.

previously-defined group. The scene is then further defined by giving it certain attributes to determine its appearance:-

It may appear as a static scene. In this case you have the option to set fade in and fade out times. Besides driving generic lighting a static scene could be used to energise strobes or smoke machines or to operate motors.

It may appear as a sound-to-light-scene and each channel may be set to respond to bass, tenor, alto or treble input.

It may appear as a zone (chasing channels). With a zone you can adjust:-
the run speed
select step to audio or the internal clock
switch or crossfade
continuous loop or one-shot
set an overall dim level
choose a pattern

Press Prog/Edit
Press Scene
Select a memory
Press Fixture

Continue over page

3. Scroll to the desired scene and press STORE. If you are editing a previously- programmed scene, you may enter the scene number on the alpha-numeric keypad, instead of scrolling through the scene list. Enter all three digits, e.g. 009, not just 9.

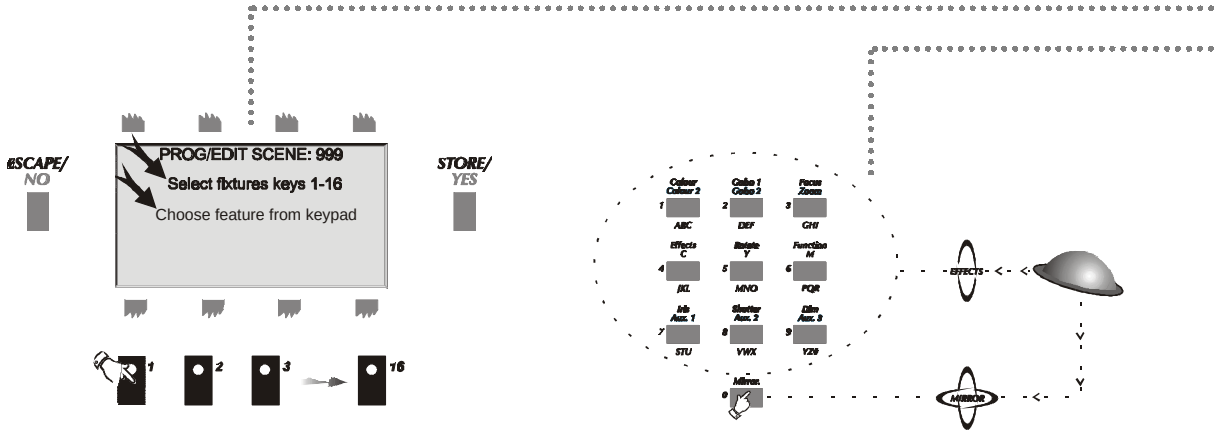
A previously-programmed scene will have a name. You may edit such scenes or clear them altogether (see page 41).

An overlay scene is labelled ov .

Scenes 450 to 495 (presets) can be flagged p or P . See pages 30 and 31 for more information.

4. Press Fixture

PROGRAMMING A SCENE WITH MOVING LIGHTS - CONTINUED



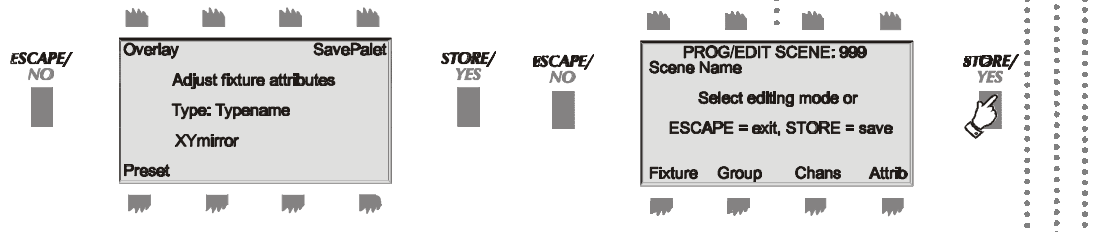
5. Select the fixtures to include in the scene, using the illuminated push buttons.

During setup you allocated personalities and DMX addresses to fixtures 1-16 [1-32]. Fixtures 1-16 [1-32] were automatically assigned to the 16 [32 over two pages] illuminated push buttons above the touchkeys. These buttons are now flashing. Push one or more buttons to select fixtures. If more than one fixture is selected, they must be of the same type. [When using the QCommander 512, you may use fixtures from either or both pages].

6. Use the attributes keypad and the trackball to adjust each attribute of the selected fixtures. Press STORE when all channels have been adjusted as required.

If you try to adjust an attribute that does not exist on this type of fixture, the instruction is ignored and the message is displayed *no valid channel type*.

Note that the buttons can have multiple functions with the exception of the mirror button. For example, pushing the top left button will give access to the first (or only) colour wheel; pushing it again accesses the second colour wheel but only if this type of fixture has a second colour wheel.



The display shows the type of fixture being used, the attribute currently being adjusted and the level of the channel (or two channels in the case of XYmirror movement), expressed as a number between 0 and 255 (or 0 and 65535 in the case of 16-bit mirror channels).

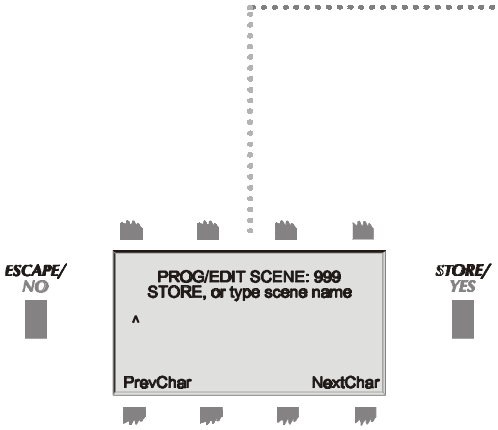
You may now want to retain the adjustments made so far and make changes to other fixtures. De-select the first fixture(s) by pressing the appropriate push buttons and select others in the same way. The selected ones flash more brightly than the rest. Repeat step 6. for this second set of fixtures. When the various attributes have been adjusted, press STORE.

7. Press STORE to save the scene or ESCAPE to abort the programming.

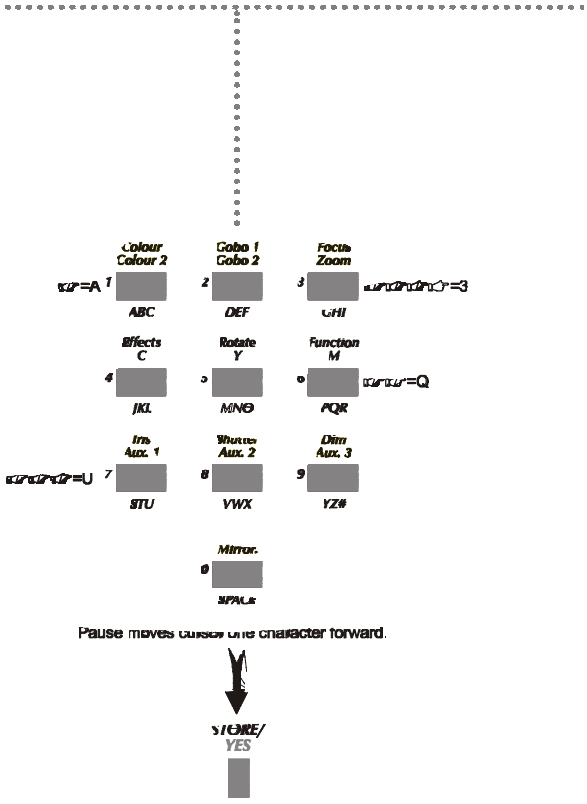
Select fixtures
Adjust attributes
Press STORE to save

Continue over page

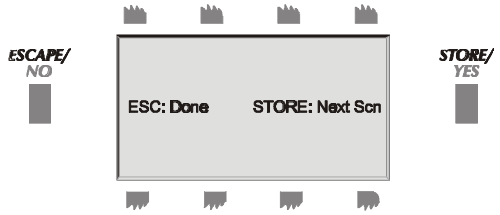
PROGRAMMING A SCENE WITH MOVING LIGHTS - CONTINUED



8. Give the scene a name.



Use the alpha-numeric keypad to name or re-name a scene, using the yellow legend. One press of the button marked ABC will display an A above the cursor ^. A second press will display a B, a third press will display a C and a fourth press a 1. Move the cursor one space right by pressing NextChar and one space left by pressing PrevChar or if you pause between presses, the cursor automatically advances to the next character.



Name the scene
Press ESC to exit,
STORE to program
another scene

9. The scene was saved in step 7. Press ESCAPE now to go back to step 3. and exit towards the main menu. Press STORE to go to step 4. and start programming a scene in the next scene memory.

Where there are several sequential scenes with the same name, the QCommander will give them a number in additional to the name. E.g. If two scenes are programmed with the name open white, the first one is referred to as *open white* and the second one as *open white [001]*.

SAVEPALET EXPLAINED

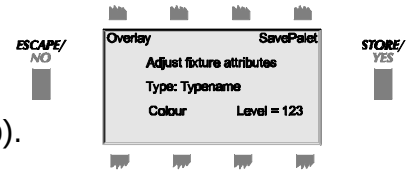
SavePalet is used with moving light scene programming to enable you to repeat settings of the various attributes during later programming. You may save 16 settings of each fixture attribute. Remember that it works with any individual attribute, not whole scenes; whole scenes may be repeated using COPY.

Here is an example of how you might use SavePalet to make your colour programming go more quickly. Read the instructions below in conjunction with the scene programming procedure beginning on page 22.

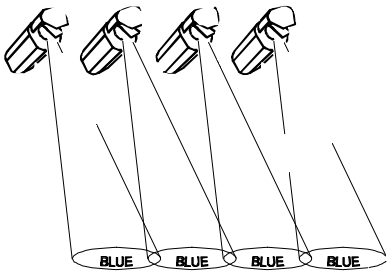
SAVING

1(a).

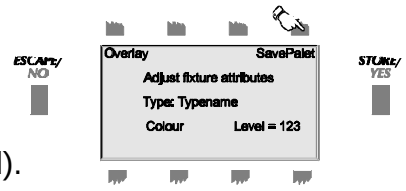
1(b).



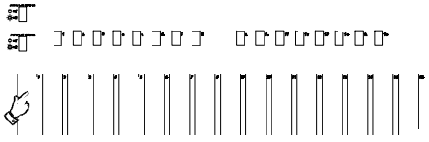
1(c).



1(d).



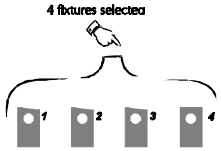
1(e).



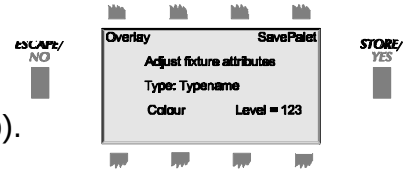
1(a). All 16 [32] fixtures are selected.
1(b). Program the scene as normal and select the colour attribute.
1(c). Adjust all fixture colour wheels to blue.
1(d). Press SavePalet
1(e). Save all selected fixtures to blue to touchkey no. 1.

RECALLING

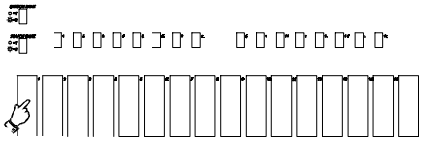
2(a).



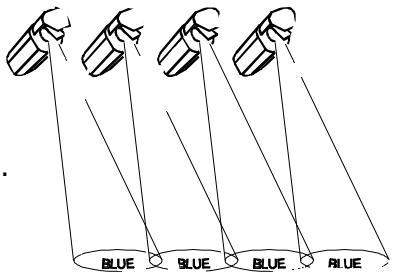
2(b).



2(c).



2(d).



2(a). Select the fixtures to progam.
2(b). Program the scene as normal and select the colour attribute.
2(c). Press touchkey no. 1
2(d). All selected fixtures go blue.

What Is TRANSPARENCY? How Does OVERLAY work?

Overlay allows you to generate scenes where only the channels you choose to use are included in the scene. All other channels remain transparent.

While an attribute is selected, press OVERLAY to and the corresponding channels become overlay channels. Press OVERLAY again to turn off the feature. OVERLAY selected will be shown in the display next to the channel level indication. The words OVERLAY ENABLED will show in the display if any attributes have been tagged OVERLAY.

For programming/editing purposes both overlay and transparent channels will be output, so that the overlay is visible. The overlay only takes effect in RUN mode.

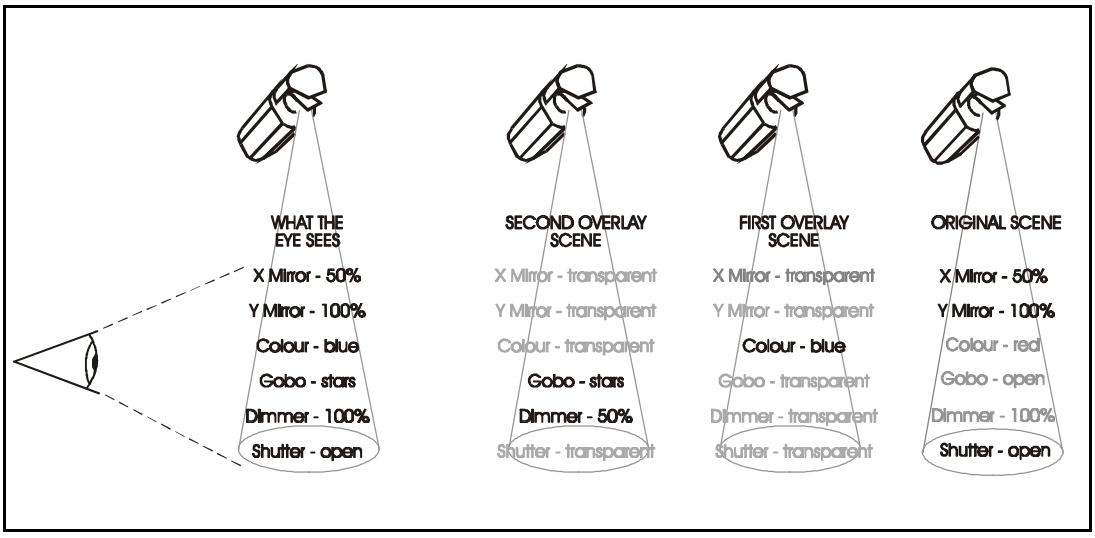
A channel may have a level between 0 and 255 or, to put it another way there are 256 steps of dimming between 0 (dimmed right down) and 255 (full brightness). There is also a neutral state where the channel has no level at all and this is when it is said to be transparent.

Transparency is used mainly when piling scenes of LTP channels on top of one another. Suppose you have scenes of moving lights all programmed with colour white. You want to leave the mirror, dim, gobo etc. just as they are but you want to reproduce the scenes with red colour..... Make an OVERLAY scene and adjust the colour wheel of each fixture to red and then save the new scene. The new scene contains only colour wheel channels. During playback you would run a chase of the original white scenes, for example. To turn the chase red, you call up the new red scene, in effect overlaying new instructions in the colour wheel channels while all other channels continue to function as before.

SavePalet Transparency and Overlay

In the example below you can see the effect of overlaying scenes. In the FIRST OVERLAY SCENE most channels are transparent. The only change to the output is caused by the overlaying of a blue colour. In the SECOND OVERLAY SCENE, the output is changed by the overlaying of a different gobo. The dimmer has moved to 50% but is HTP and not LTP, so the original output of 100% is maintained.

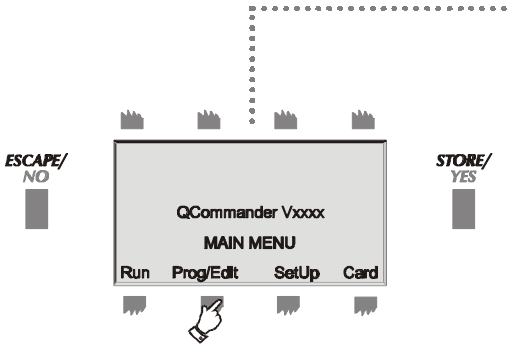
Note that when you program an overlay scene, ***all fixture channels*** are affected and will be rendered transparent if not specifically included in the scene. Non-fixture channels are not rendered transparent and may therefore be added to the scene.



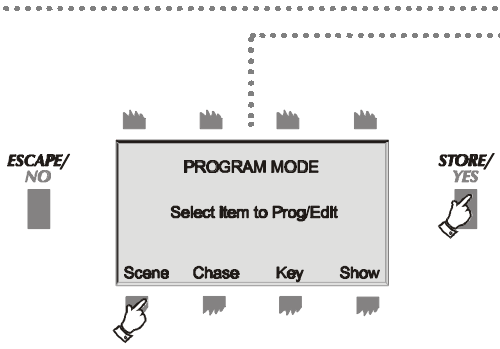
PROGRAMMING SCENES USING PRESET FOCUS

Preset focuses or position memories allow you to speed up the programming of fixtures into scenes by linking channels to a library of scenes that you have previously programmed for this purpose. In the QCommander this library can contain 46 scenes of the 512 available, i.e. nos. 450-495 and in the scene list these scenes are indicated with a 'p' on the right hand side of the display. A scene indicated with a 'P' (upper case) is a preset currently being used by a client scene. Preset scenes are programmed in the normal way, as shown in pages 22-27. Whenever a preset scene is modified, all its client scenes are similarly modified. Up to three presets may be used by each client scene.

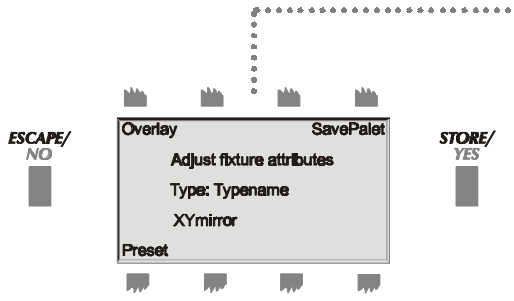
When you program a client scene and create a link to a preset scene to choose, for example, a mirror position, the mirror channels will be annotated Lnk while all other channels will be annotated NoLnk, see 8. below.



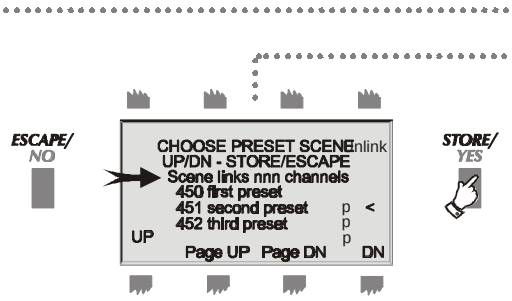
1. Press Prog/Edit.



2. Press Scene



5. Press Preset.



6. Scroll to the desired preset scene and press STORE to apply the preset to the scene being programmed. If you attempt an invalid link, you will see the message ** No linkable channels**.

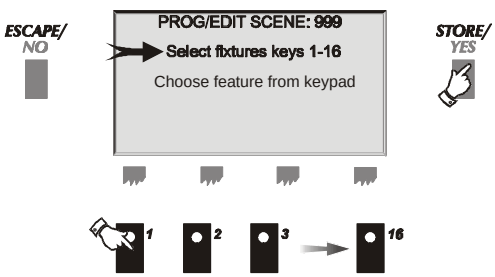
Note: The message Scene links nnn channels refers to the number of selected fixtures multiplied by the number of non-transparent channels in each fixture.

Client scene channels linked by a previous selection are automatically excluded from any subsequent selection. An attempt to make a second link will produce the message in the display No linkable channels . Links cannot apply to transparent channels.

If you adjust a linked channel in the client scene, the link for that channel is broken and the link to the preset is broken completely if all linked channels are manually adjusted. Channels (in client scenes) which have been manually adjusted must be made transparent before they can be linked again. Linked channels in client scenes must be unlinked before a new link can be established.

Do not use the Overlay function in a scene which also calls up Presets. To do so will kill any links to presets.

3. Scroll to the desired scene and press STORE.



4. Press Fixture and then select fixtures using the 16 [32] push buttons.

Press Prog/Edit
Press Scene
Select a Memory
Select Fixtures

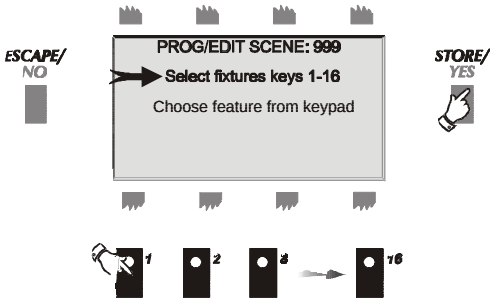
Press Preset
Select Preset Scene
Edit Non-Preset Channels

7. The display shows that the preset is in place. You may now edit individual channels/attributes (page 24, no. 6) but note that you will break links with the preset for each channel/attribute that you edit.

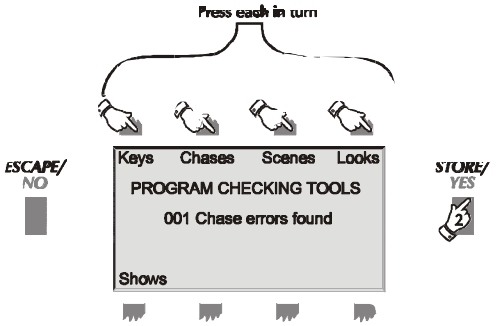
8. You can see from the scene channels list that there is a Lnk/Nolnk and to which scene. In the scene list an L alongside the scene indicates that the scene in linked to presets.

AUTO CHECK

When you set Auto Check to on, as described in the system options section later in this manual, the QCommander automatically checks for programming errors and corrupt data held in memories.

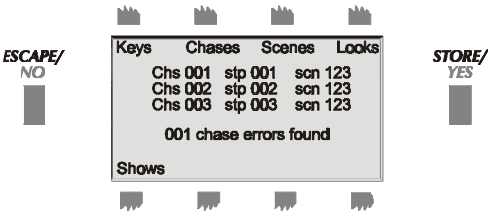


1. If, during programming, you see the arrowed message, press STORE to track down the error.



The display changes according to the button that you press. In this example there is an error in chase programming.

2. Press each of the buttons in turn to identify in which type of program the error occurs. Press STORE to list the errors.



One scene, occurring in three different locations is the problem. Further investigation might show that this scene is a ZONE and cannot be included in a chase.

3. The occurrences of the error are listed, Press ESCAPE to exit,

16 BIT MIRROR FADES

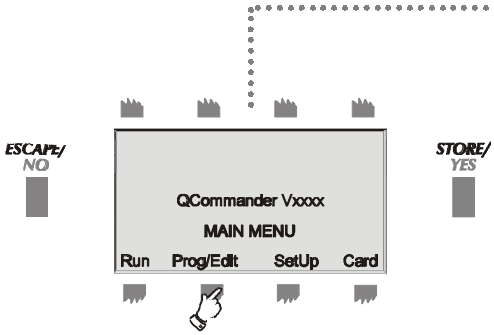
Where the fixture(s) you are programming support 16-bit mirror fades, the QCommander automatically makes this feature available, giving you 65536 steps of adjustment instead of 256.

MIRROR LOCKS

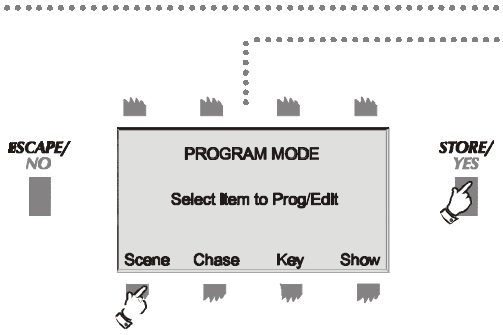
One press of the Mirror button on the alphanumeric keypad will show XY mirror in the display and allow you to adjust both mirror axes. A second press will display X mirror and allow adjustment of the X axis only. A third press will enable XY again and a fourth Y only.

Auto Check
Mirror Locks
16-bit Mirror Fades

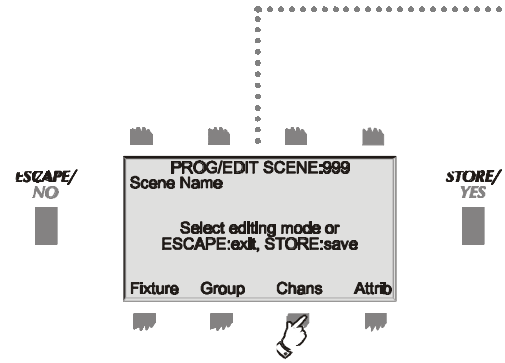
(B) PROGRAMMING CHANNELS INTO A SCENE - GENERIC LIGHTING



1. Press Prog/Edit

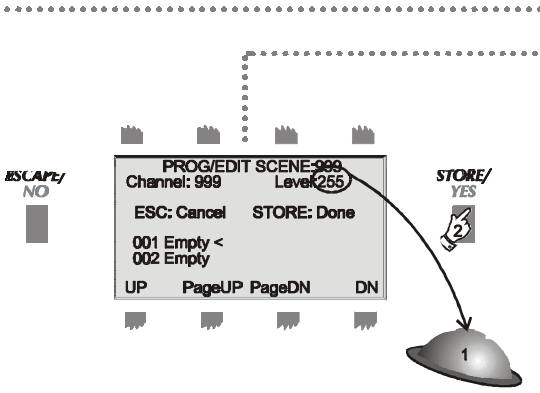


2. Press Scene



4. Press Chans to select channels for the scene.

Alternatively you may press Group to select any previously-defined group(s) into the scene. See page 36.

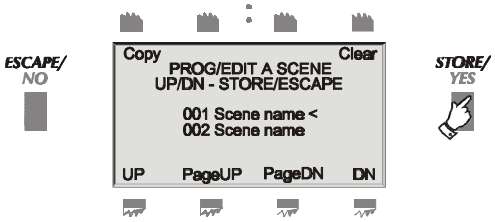


5. Scroll through the channel list. All channels not previously programmed are transparent (see page 29 for explanation) until you give them a level by means of the trackball. Press STORE when finished.

TIP!

REMOVING CHANNELS FROM A SCENE

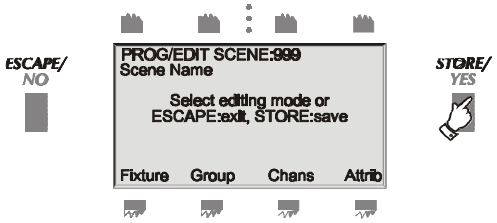
During editing a channel may be removed from a scene (made transparent again) by scrolling to it as in step 5. and then pressing ESCAPE. Do not edit the level first or the QCommander will think you simply want to cancel the edit.



3. Scroll up/down the list to find the scene you want. A previously programmed scene will have a name. You may overwrite or edit such scenes. Where there are several scenes with the same name, the QCommander will automatically give them a number in addition to the name. E.g. if two scenes are programmed with the name *red wash*, the first one is referred to as *red wash* and the second one as *red wash [001]*.

The COPY and CLEAR options in this screen will be dealt with at the end of this section.

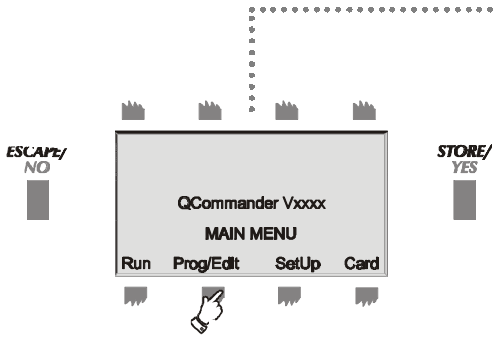
Press Prog/Edit
Press Scene
Select a memory
Press Chans
Select channels
Press STORE



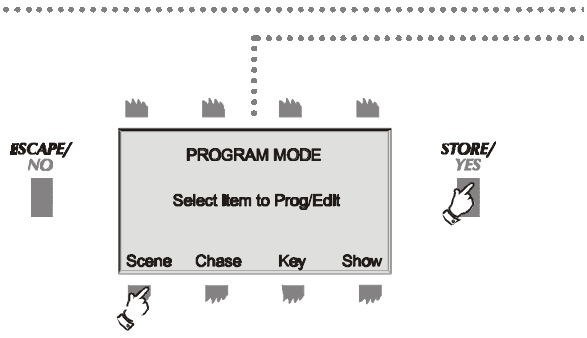
6. EITHER Press STORE to save and then name the scene as described in the previous section.

OR Press ATTRIB, to define how the selected channels will function within the scene. See page 38.

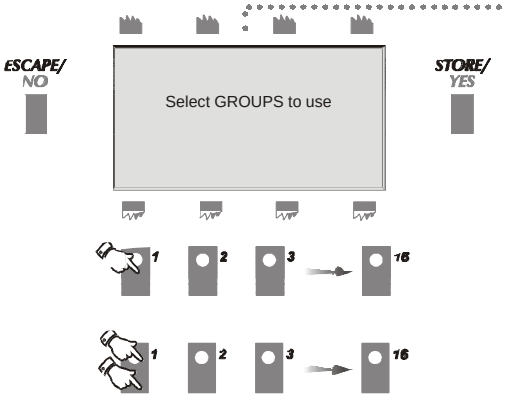
(B) PROGRAMMING GROUPS INTO A SCENE - GENERIC LIGHTING



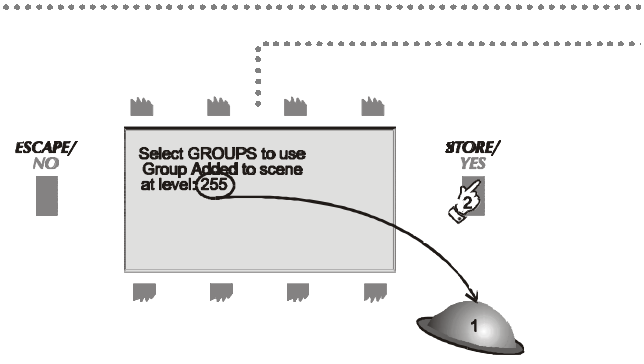
1. Press Prog/Edit



2. Press Scene

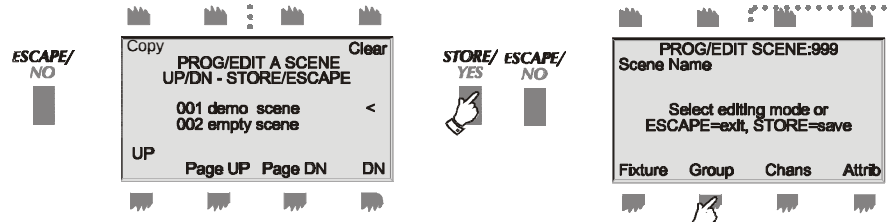


5. Use the push buttons to select the groups you wish to import into the scene. Push a button a second time to de-select a selected group.



6. Groups are imported with all channels at brightness level 255. Adjust the level of the group with the trackball. Press STORE when finished adding groups.

TIP! You can add groups into a scene built from individual channels. You can equally well start with a group and then add or modify channels. The channels menu will always show the scene data in the most detail, so any final adjustments to an imported group should always be made using the channels menu.

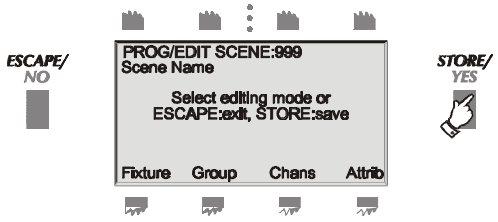


3. Scroll to the desired scene and press STORE. If you are editing a previously-programmed scene, you may enter the scene number on the alpha-numeric keypad, instead of scrolling through the scene list. Enter all three digits, e.g. 009, not just 9.

A previously-programmed scene will have a name. You may overwrite or edit such scenes. Where there are several scenes with the same name, the QCommander will give them a number in additional to the name. E.g. If two scenes are programmed with the name open white, the first one is referred to as *open white* and the second one as *open white [001]*.

4. Press Group.

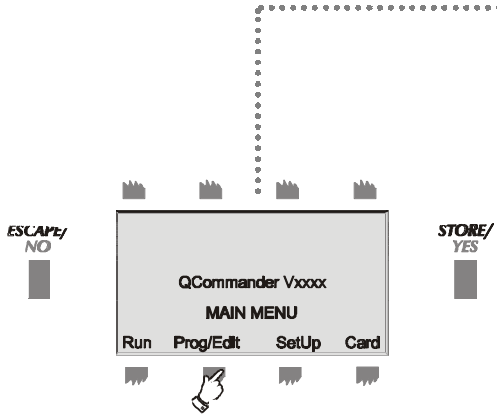
Press Prog/Edit
Press Scene
Select a memory
Press Group
Select Groups
Select level
Press STORE



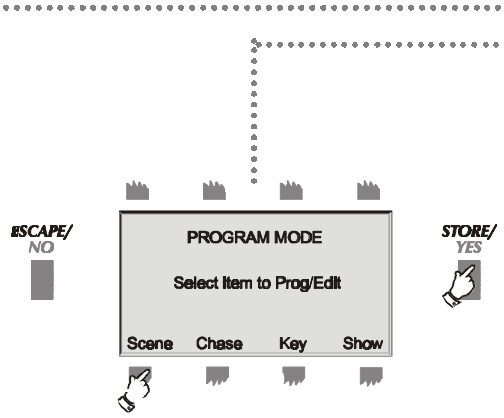
7. EITHER Press STORE to save and then name the scene as described in previous sections.

OR Press ATTRIB, to define how the selected channels within the groups(s) will function within the scene. See the next section over the page.

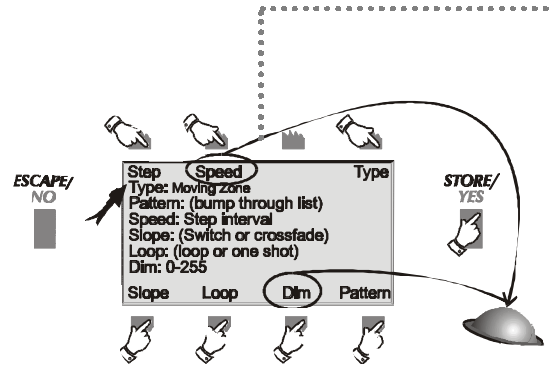
SELECTING SCENE ATTRIBUTES - GENERIC LIGHTING



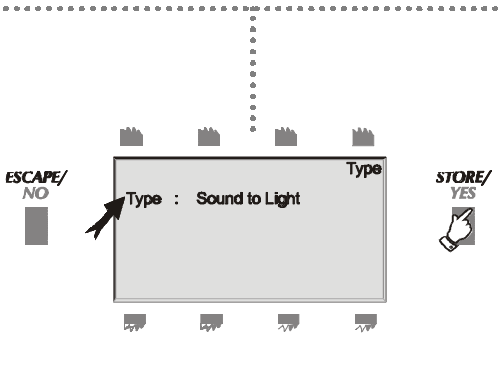
1. Press Prog/Edit.



2. Press Scene.

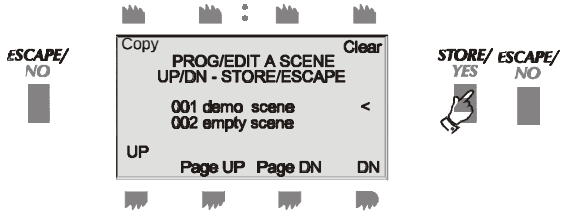


5(a). Bump through the options under the *Type* button. If you select **MOVING ZONE**, this screen appears and you can then adjust the various attributes. When step is not *audio*, *speed* is enabled and may be adjusted using the trackball. *Slope* is either switch or crossfade. *Loop* is either loop or one-shot. When you push *dim* the level may be adjusted using the trackball. Bump through the various *patterns* to choose the zone effect you want. Press STORE when finished. Note that the speed refers to the time in minutes and seconds taken for one cycle of the zone pattern.

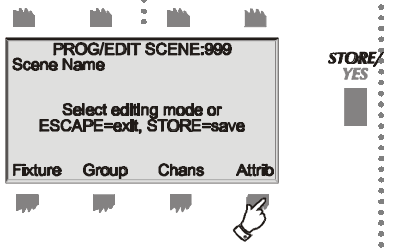


***OR* 5(b).** Bump through the options under the *Type* button. If you select **SOUND-TO-LIGHT**, this screen appears. If you now go back into the channels menu, you will notice that the channels no longer have levels but are tagged *bass*, *tenor*, *alto* and *treble*. You can select each channel and change the *bass*, *tenor*, *alto* and *treble* settings using the trackball.

TIP! Remember that an audio input connection is not absolutely necessary. The QCommander is equipped with an internal microphone to run audio functions. It is disabled by inserting a jack plug into the audio socket.

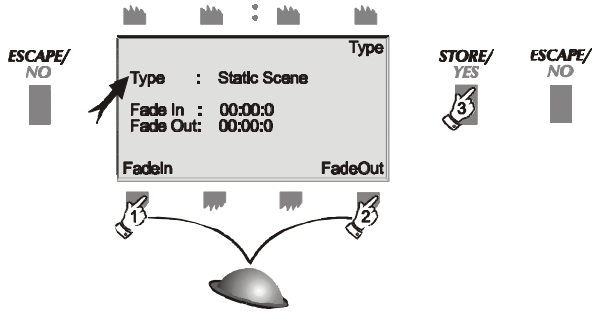


3. Scroll to the scene to Prog/Edit and press STORE.

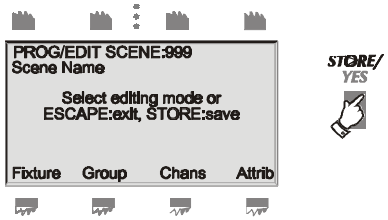


4. Press Attrib.

Press Prog/Edit
Press Scene
Select a memory
Press Attrib
Select Type and attributes
Press STORE



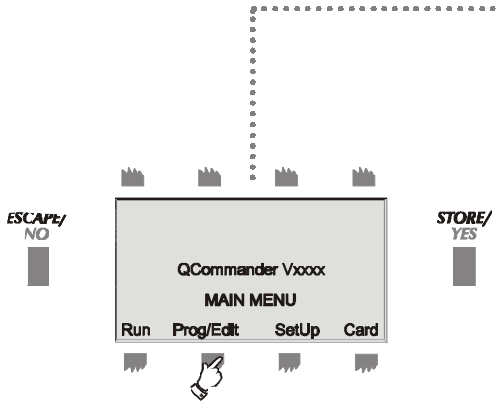
***OR* 5(c).** Bump through the options under the *Type* button. If you select **STATIC SCENE**, this screen appears. You may choose to select FadeIn and/or FadeOut times or not. Fade out is disabled by default; it can be enabled via the system options utility.



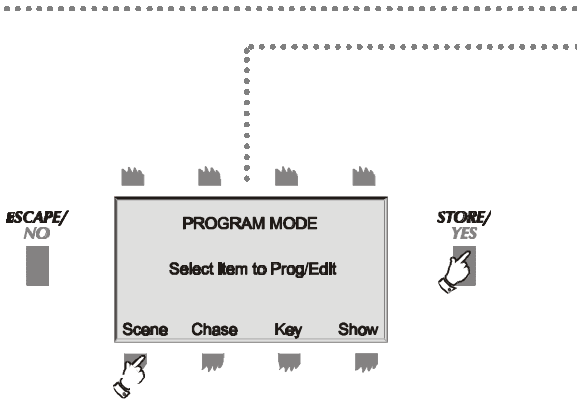
6. Save and name the scene.

COPYING AND CLEARING SCENE MEMORIES

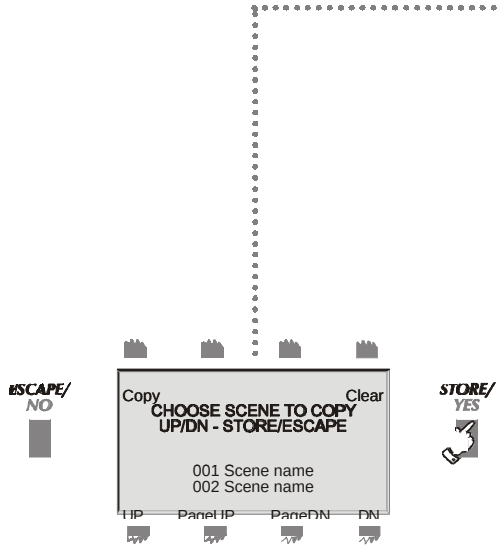
Existing scenes may be copied from one location to another from within the scene programming menu. Proceed as follows to copy a scene to another memory number.



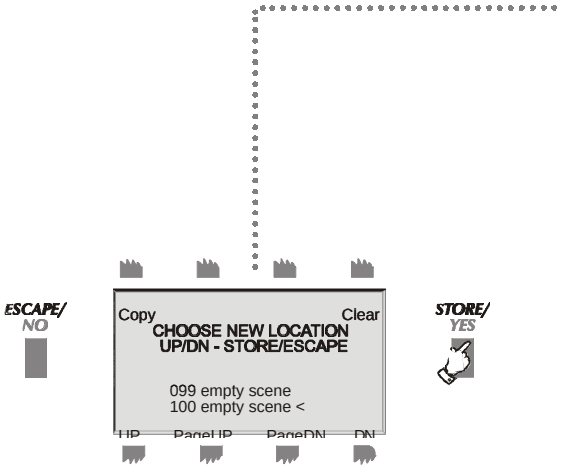
1. Press Prog/Edit



2. Press Scene

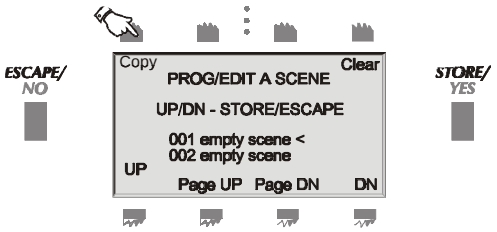


4(a). Scroll to the scene to copy and press STORE.



5(a). Scroll to the new location for the copied scene and press STORE.

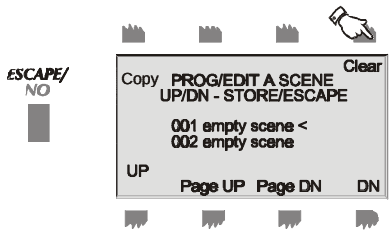
You have now looped back to step 3.
You may continue programming or exit.



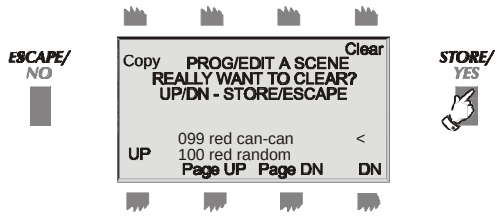
3(a). Press COPY

Press Prog/Edit
Press Scene
Press Copy
Select the scene to copy
Select the new scene memory and press STORE

To clear a scene memory (delete a scene) repeat steps 1. & 2. above, then do the following:-



3(b). Scroll to the scene you wish to delete and press **Clear**.

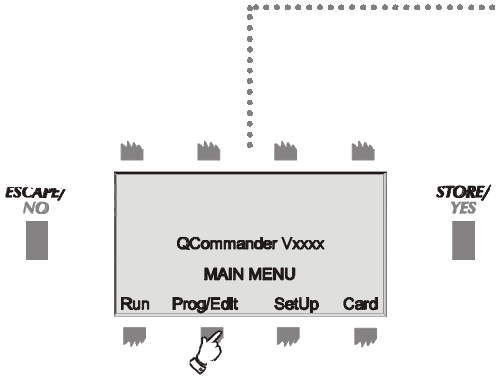


4(b). Confirm that you wish to delete the scene by pressing **STORE.**

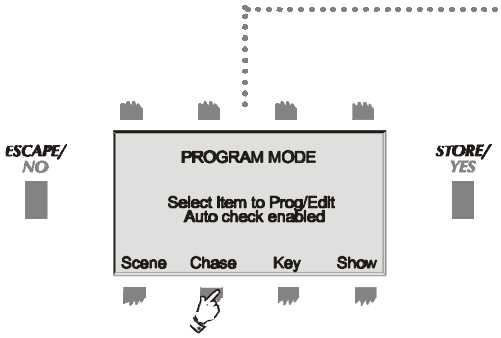
You have now looped back to step 3. You may continue programming or exit.

PROGRAMMING A CHASE

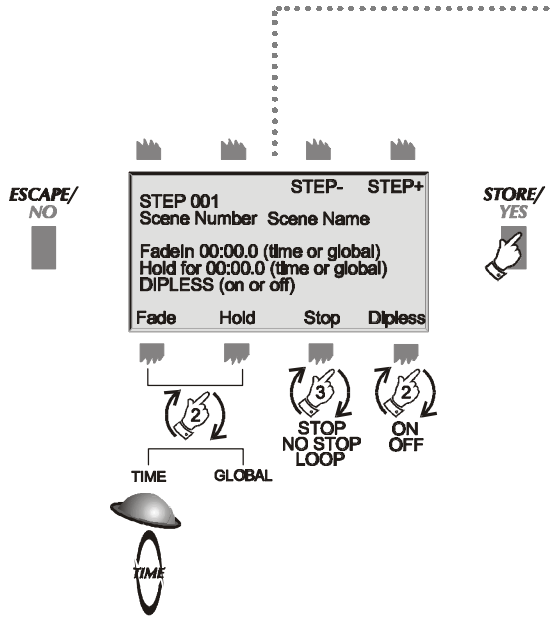
Scenes made with moving lights may be programmed together into a sequence called a chase. You can also make a chase with scenes of generic lighting.



1. Press Program/Edit



2. Press Chase



5. Select attributes for this chase step:-

STEP- and **STEP+** allow you to move through the series of scenes you are programming into the chase, so that you can fine tune the attributes.

FADE allows you to control the time between steps and **HOLD** is the time that a chase rests on one step before passing to the next fade time and the next step. You may adjust FADE and HOLD for each step or you may choose to have all FADEs of one length and all HOLDs of one length. In this case select **GLOBAL**. The global time is set later after all the chase steps have been selected.

STOP has three options:-
- No effect
- The chase stops at this scene
- The chase loops to the start at this scene·

The **DIPLESS** crossfade option is not active in this version and is permanently switched on.

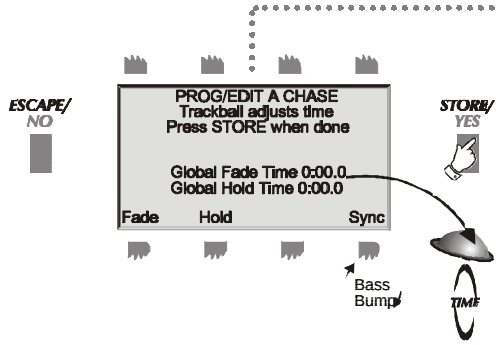
Press STORE.... to confirm the attributes for the current chase step and loop to step no. 4 to select the next step and edit its attributes. After setting the attributes for the last requied step, press ESCAPE.

3. Scroll up/down the list and select a chase to program by pressing STORE. A previously programmed chase will have a name. You may overwrite or edit such chases.

Note: A chase memory may be cleared by pressing the *Clear* button and then pressing STORE to confirm that you really want to clear.

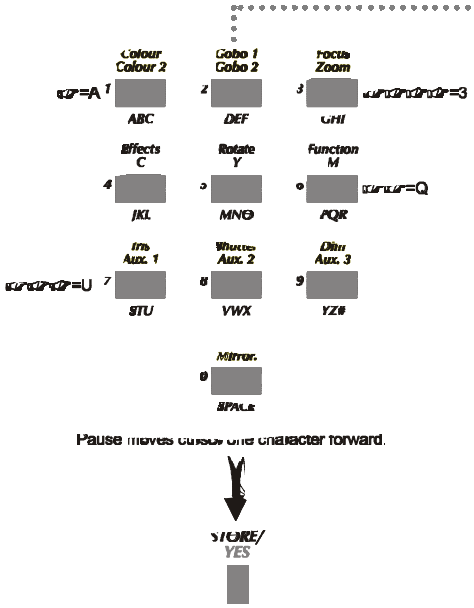
4. Scroll up/down the scene list to find the scene you want for this chase step. Press STORE.

Press Prog/Edit
Press Chase
Select a chase memory
Select a scene for each step. Set step attributes
Press STORE
Name the chase



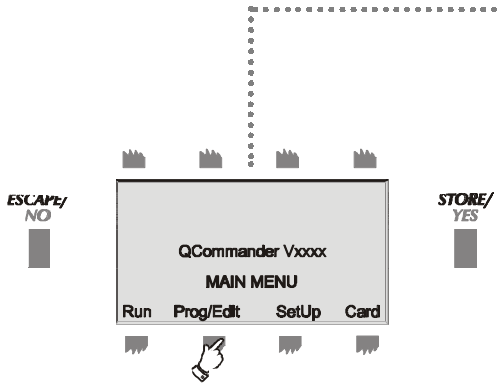
6. If you have not entered a Fade time and a Hold time for each step in the chase, you will need to set the global time; this will apply to all steps in the chase. Adjust the global time using the trackball.

You may select *audiosync* to synchronise the stepping of the chase to the bass beat of the music or *bumpsync* to synchronise with presses of the Go button (when in RUN MODE. A further press will remove both synchronisation options. The display indicates any synchronisation chosen. Press STORE to save the chase.

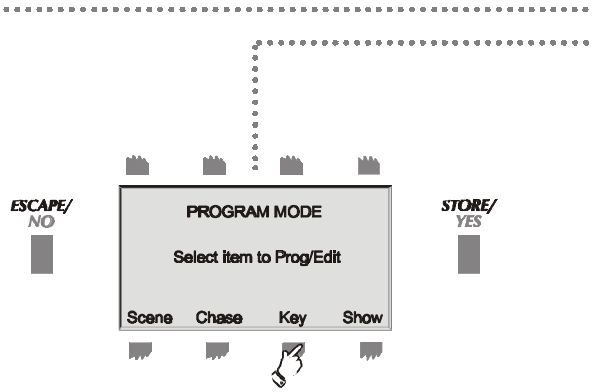


7. Name the chase. See earlier sections for a full description of the method. Press STORE to save, then ESCAPE back through the levels.

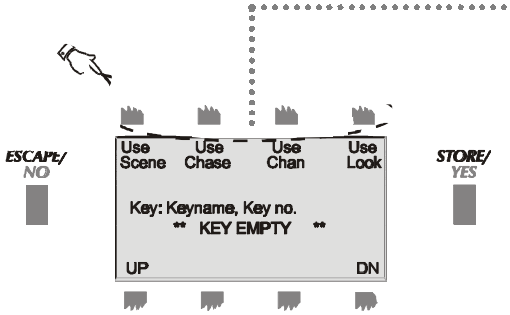
SCENES, CHASES, CHANNELS AND LOOKS ARE LOADED ON TO PUSH BUTTONS



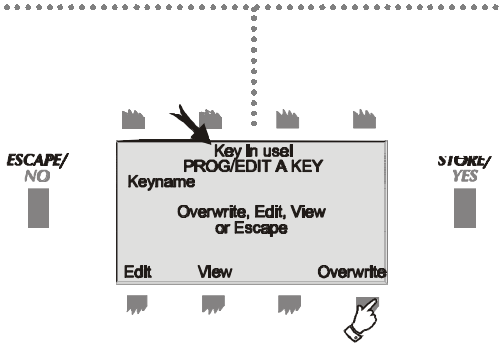
1. Press Prog/Edit



2. Press Key

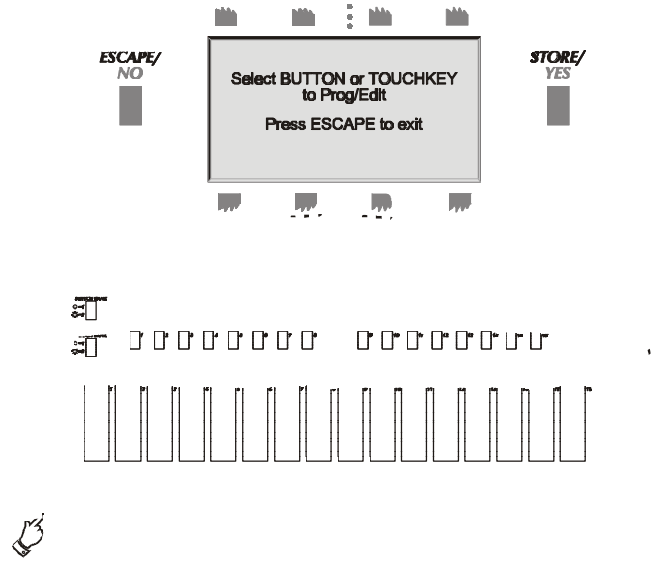


EITHER 4(a) If the key has nothing previously assigned to it, you see this screen. Choose an effect to assign to the key. Then press STORE.



OR 4(b) If the key has been previously programmed, you have the choice to:-
overwrite the previous assignments
edit them
view them without making changes
Escape

OR TOUCHKEYS FOR PLAYBACK



3. Press the pushbutton or touchpad you wish to program. The selected key flashes. Remember that you have available two pages of buttons and two pages of touchkeys. Select the page using the buttons on the left. If the key is in use, you will get the message KEY STILL ACTIVE. You must ESCAPE and switch off the key before you re-program it.

Press Prog/Edit
Press Key
Select a pushbutton or touchkey
Select Scene, Chase Channel or Look

Continue over page

PRIORITY RULES FOR PLAYBACK

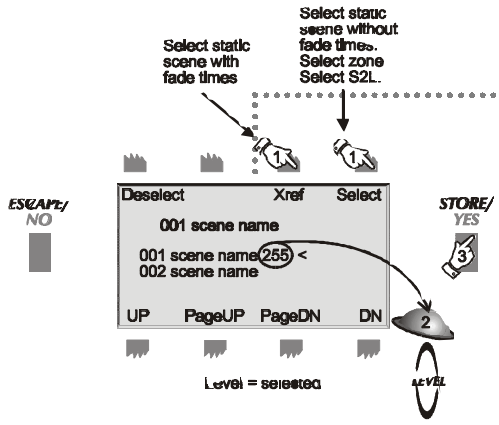
You may assign multiple effects to one output key in combinations of *scenes*, *chases* and *channels*. You may assign one *look* only to a key. The *look* will suppress any other existing key contents. Should you later decide to remove the *look*, the original contents of the key will be restored.

During playback later button presses will have priority over earlier ones because of the *last takes precedence* rule.

Where multiple effects are assigned to a single key, the QCommander has its own system of rules for deciding priorities. Where, for example, there are multiple chases, it will give priority to the last-selected ones and channels called by multiple chases will respond to the higher priority ones. Where there is a mix of scenes, zones and chases, the order of priority is first chases, then zones, then scenes.

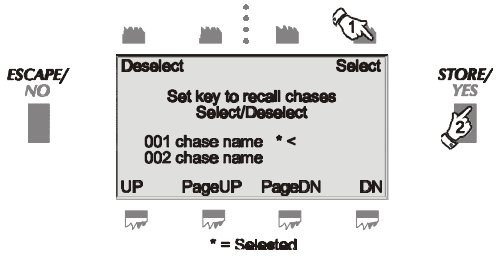
You may assign effects to a key already containing a *show* but these effects will be suppressed until the *show* is removed from the key.

SCENES, CHASES, CHANNELS AND LOOKS ARE LOADED ON TO PUSH BUTTONS



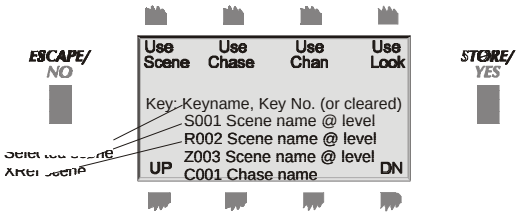
5(a). Scroll through the scene list and press **SELECT** to include in the keylist a zone, a sound-to-light scene or a static scene with no fade times. Press **XREF** to include a static scene with its associated fade times.

When you select a scene, the level 255 (full brightness as programmed) appears by the selection. Use the trackball to change the level. Scroll to other scenes and use SELECT and DESELECT. Press STORE when finished to go back to step 4.



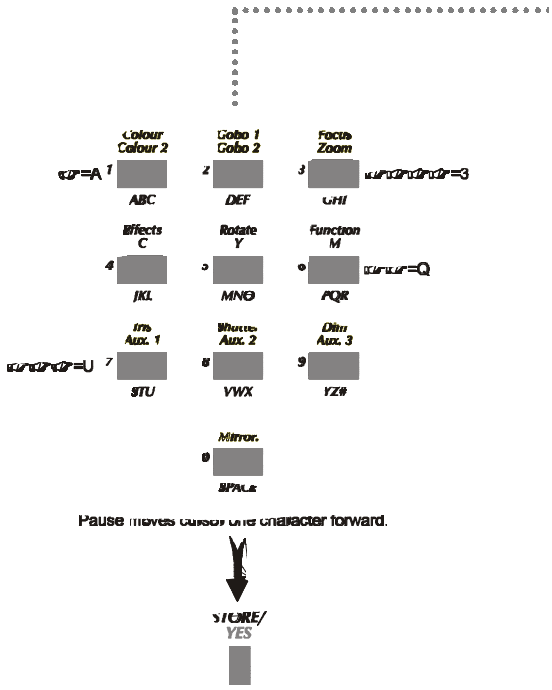
5(b). Scroll through the chase list and press SELECT to include a chase in the keylist. A selected chased is denoted by a * next to it.

Press STORE when finished to go back to step 4.



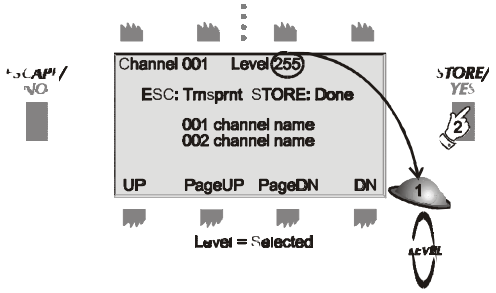
6. When you have finished assigning effects to the key, this screen shows what effects have been assigned to it. Where only channels are assigned to the key, individual channels are not shown but you will see the message channels only . Use the UP and DN buttons to scroll through the list of assigned effects.

Press STORE to continue and name the key.

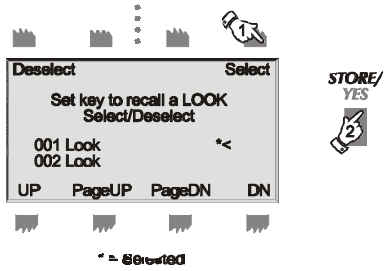


7. Now name the key and press STORE to finish.

OR TOUCHKEYS FOR PLAYBACK - CONTINUED



5(c). Scroll to any channel. A channel is transparent until you move the trackball. It is then selected at the level shown. Select one or several channels. Press STORE when finished to go back to step 4.



5(d). Scroll through the look list and press SELECT to include a Look in the keylist. A selected look is denoted by a * next to it. Press STORE when finished to go back to step 4.

Select effects to go on the key
Name the key

The capturing (programming) of a **LOOK** is dealt with later on in the section on the RUN menu.

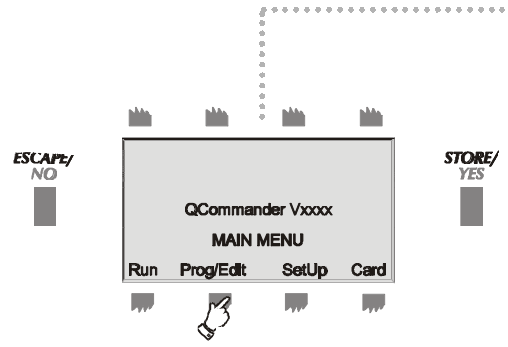
DELETING THE CONTENTS OF A KEY

Follow the instructions in this section as far as step 4. If the key is not empty, you will see screen 4(b) and be asked if you wish to overwrite, edit or view the contents. Select overwrite to get to step 4(a) and see that the key is described as cleared. Then escape back to the main menu.

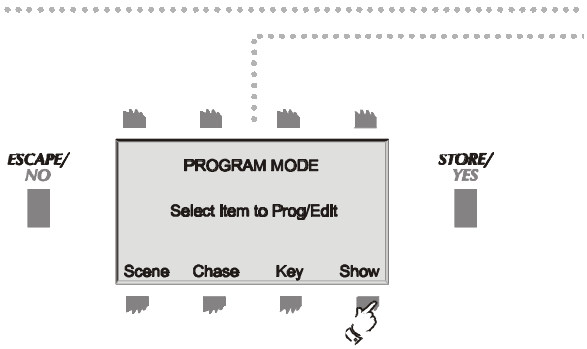
REAL TIME SHOW PROGRAMMING

A show is a combination of events - scenes, chases, channels and looks. Events may be switched in and out of a show and this makes it different from a look which is a single snapshot of the outputs.

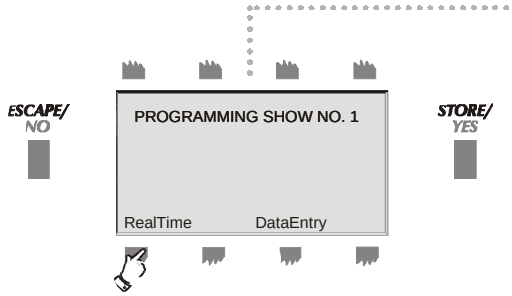
The QCommander allows you to program a show in realtime, so that while you play back a series of events, the QCommander memorises the events, the order in which they are played and its duration.



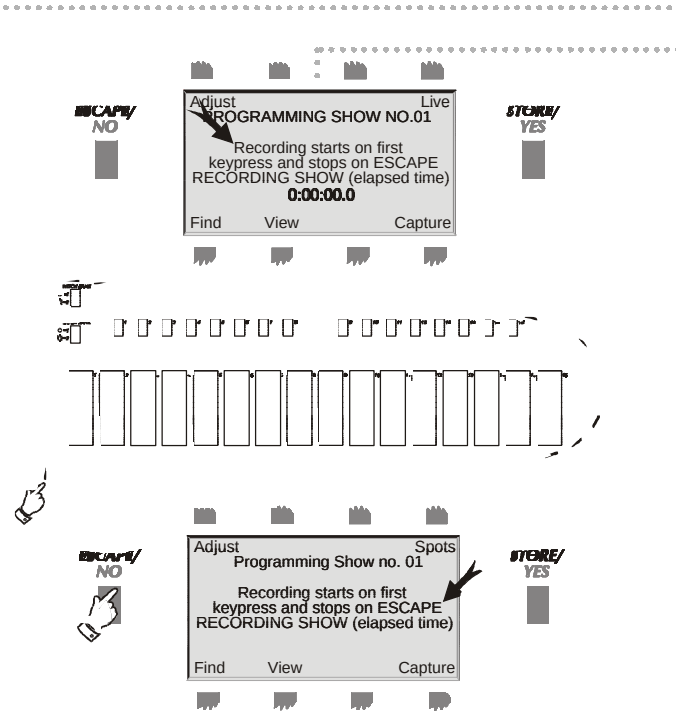
1. Press Prog/Edit



2. Press Show



4. Press RealTime

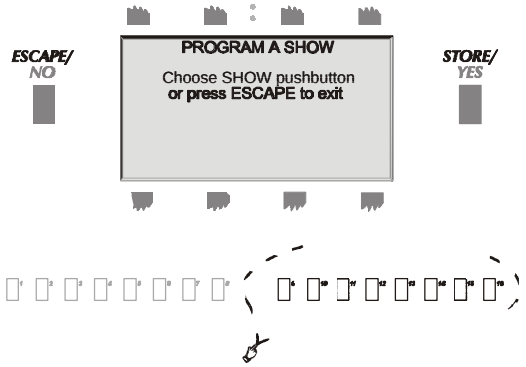


5. Use the output push buttons and touchkeys to run and record your effects. Press ESCAPE to end recording. While recording the display shows the elapsed time for the show.

The buttons Find, View, Levels and Capture are dealt with in the section on RUN MODE.

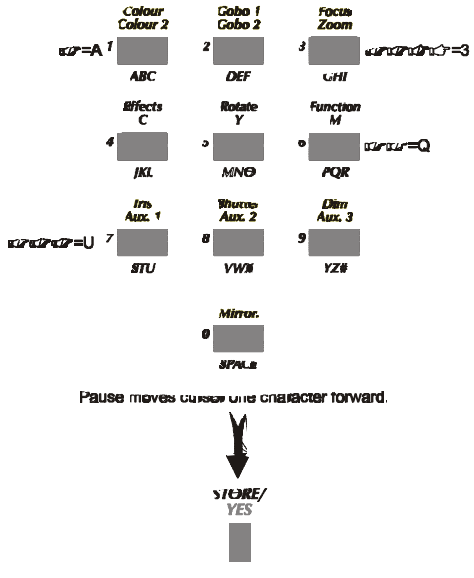
By setting up a patch of the appropriate output key, it is possible to patch a show.

TIP!



3. Choose a show pushbutton

Press Prog/Edit
Press Show
Choose a Show button
Press RealTime
Record the Show
Press Escape to Stop
Name the Show



6. Name your show.

You have now returned to step 2. You can program another show or press ESCAPE to go back through the menu levels.

NOTES ON SHOWS

A running show is indicated by its output key LED remaining lit. A second press of the key turns off the show and the LED.

A show may be programmed so that its last action is to call another show. Alternatively, a second show may be called manually while a previous show is running. Calling the second show terminates the previous show. If that previous show is later recalled, it will run from the start and not from the point where it was previously terminated.

By default shows run once and then terminate. If you want shows to loop repeatedly until cancelled, then set option 23 to ON in the system options menu dealt with on page 69.

Before a show starts to run, it may make sense to call a blackout of those channels used in a show. This can be made to happen automatically by setting system option no. 26 to ON.

DELETING A SHOW

To delete a show from an output button, follow these instructions as far as step 3. When you choose the button from which you want to delete, you will get the message *Show not empty! Overwrite, Edit or Escape*. Select *Overwrite* and then escape back to the main menu.

DATA ENTRY STYLE SHOW PROGRAMMING

This is not fully functional in this version. However it may be satisfactorily used to edit a show and has a value in editing the run times of the keys. Press the time button and then use the trackball to increase/decrease the time.

RUN MODE - GENERAL

If the QCommander is left switched on and menu timers are active, it will default to RUN MODE, as in the first illustration below. Alternatively, from the main menu, press Run. This is the menu from which you play back the effects you have programmed, using the push buttons and the touchpads. Simply push the keys you have programmed to output the effects.

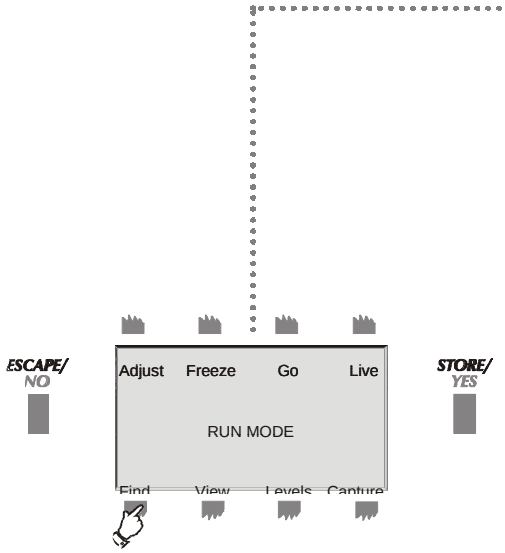
There are several utilities available in RUN MODE to help you manage your output; these are explained in the next few pages.

Effects are sent to the outputs simply by pressing the pushbuttons and touchkeys to which they were assigned during programming.

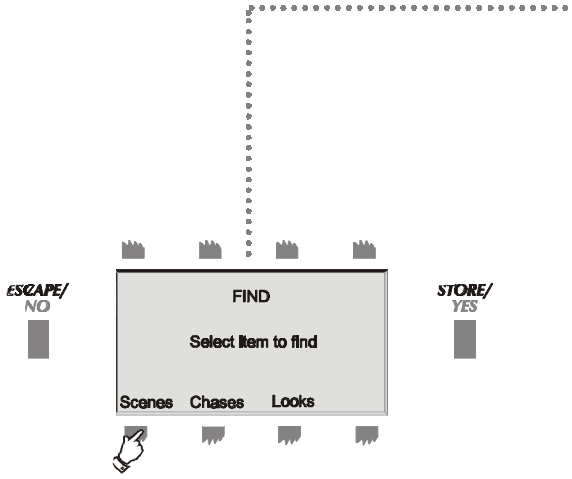
There are two pages of pushbuttons and two pages of touchkeys. When a button or key is active on the other page, the LED will blink slowly to indicate this fact.

FIND

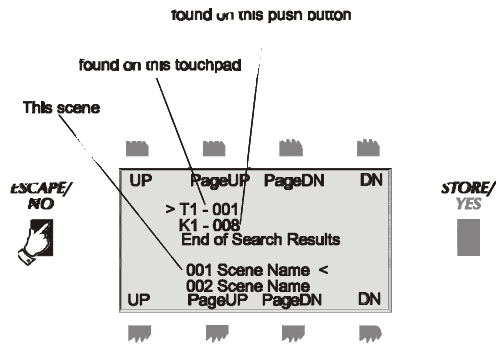
Find allows you to look up the location(s) of a particular effect.



1. Press FIND



2. Select the type of effect to find, e.g. a Scene.



Press Find
Press Scene, Chase etc.
Press ESC when finished

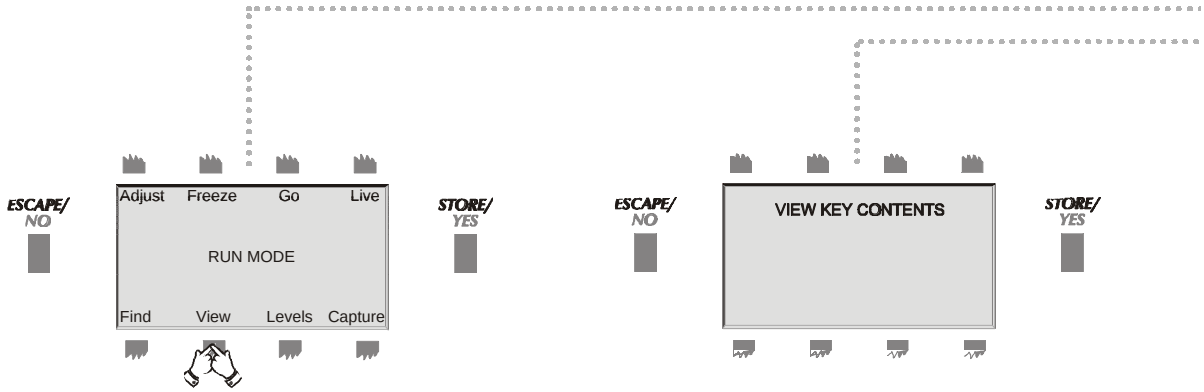
3. The lower list shows all the programmed scenes.

The upper list shows the output key locations of the selected scene.

Press ESCAPE to return to RUN MODE.

VIEW

View allows you to see the contents of an output key. The value of this function depends a great deal on the extent to which you make use of the various naming functions available to you.

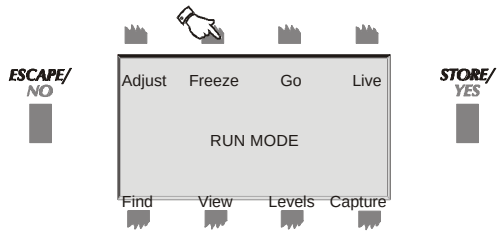


1. Hold VIEW pressed.

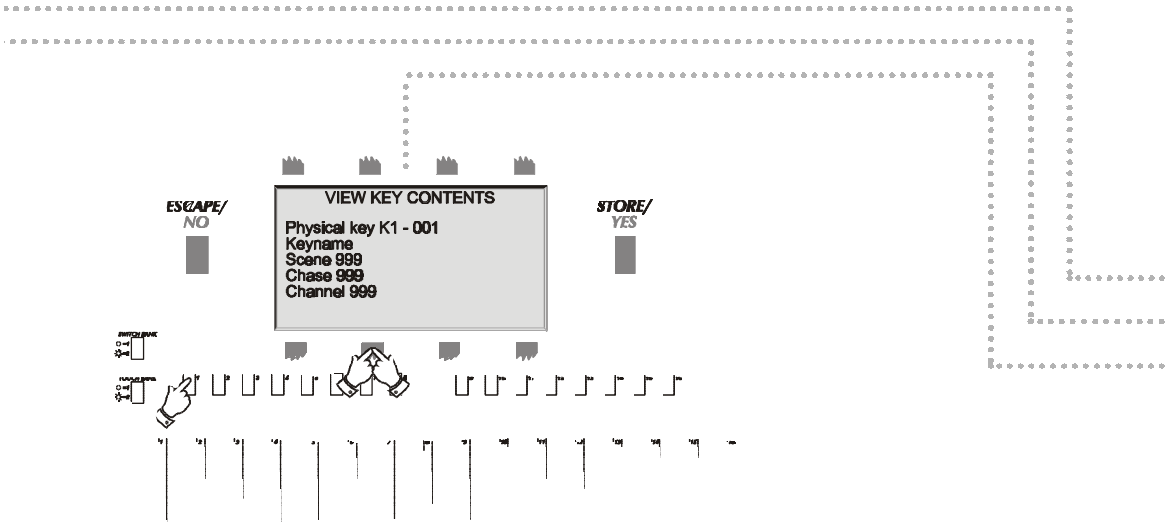
2. Now press an output key.

FREEZE

Freeze stops all movement in the outputs. Note that the QCommander 512 has no *Freeze* function.



1. Press Freeze. Press once again to re-commence movement.



Hold View pressed
Press the key to view
Release View when finished

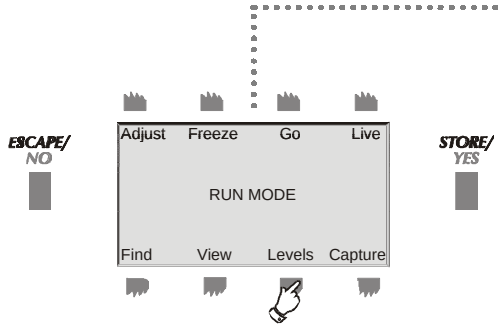
3. The display shows the contents of the pressed key.

Release VIEW to return to RUN MODE.

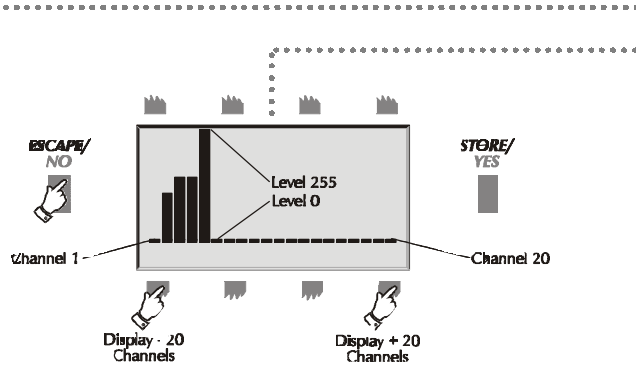
LEVELS

Levels provides an approximate display of channel activity across a range of 20 channels.

Note that the QCommander 512 has no *Levels* display.



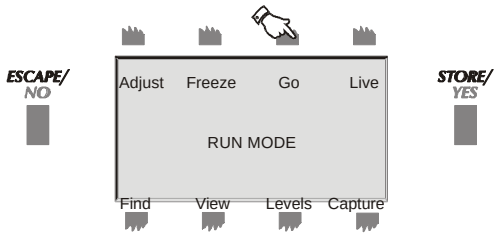
1. Press Levels



2. Display shows levels in any active output channels. Push the bottom right softkey for the next 20 channels; the bottom left softkey for the previous 20 channels.

GO

When programming a chase you will encounter the menu choice *Sync*. One of the options within *Sync* is *Bumpsync*. A chase that has *Bumpsync* selected will advance one programmed step for every press of the *Go* button.



1. Press Go to stop all movement. Press again to re-start movement.

Press Levels
Press softkey to scroll ± 20 channels

CAPTURING A LOOK

A Look is a snapshot of the outputs at a particular moment in time.

While in RUN MODE you might be running a combination of scenes, chases and channels and decide that you want to save (or capture) this set of outputs to be repeated at some later time.

A Look may be stored on any empty push button or touchkey. Nothing else may be stored on a key while it holds a Look.

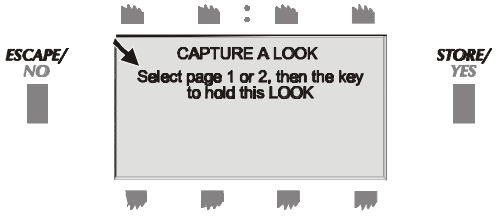
There are eight available Look memories. If you attempt to capture a ninth Look, you are prompted to escape or overwrite Look No. 1.

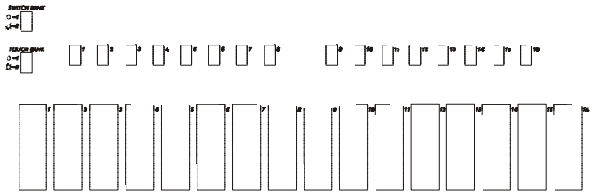
A look is replayed by pressing the output key to which it was saved during capture. This key serves as a macro to recall all the keys that were active at the time that the capture was made.

By default Capture is disabled and must be enabled via the system options utility described on page 69.

1. While the desired combination of effects is being output, press CAPTURE.

Press Capture
Choose an output key



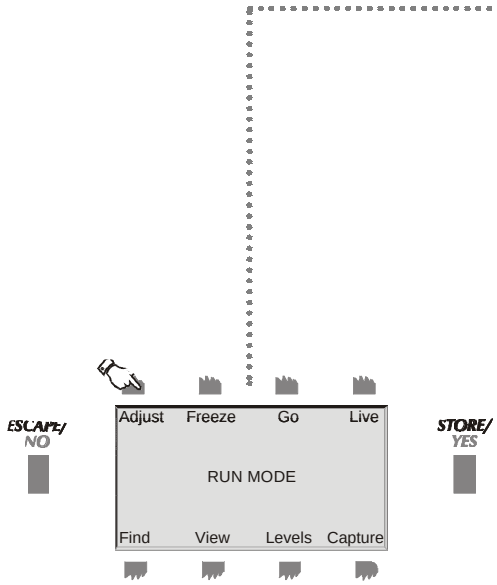


2. Choose a push button or touchkey to hold what you have captured - a LOOK.

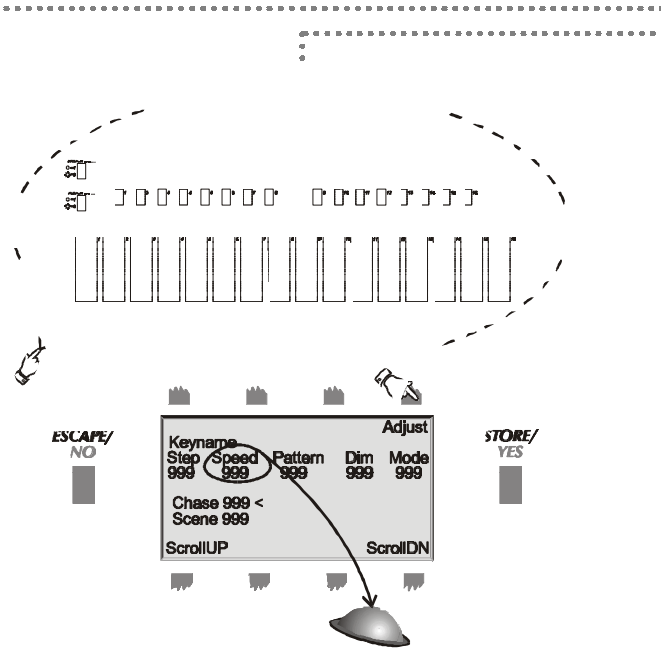
Remember that there are two pages of push buttons and two pages of touchkeys.

ADJUST

Adjust allows you to change the various attributes of programmed effects such as chases or scenes while they are running in the outputs.



1. Press Adjust.



2. Select an output key to adjust.

Press Adjust to scroll through the list of available adjustments.

If an attribute is available for adjustment, it becomes *live* on the trackball and its caption is displayed in upper case letters.

Make the adjustment and then press STORE to return to RUN MODE.

NOTE: In the current version the following attributes may be *adjusted:-*

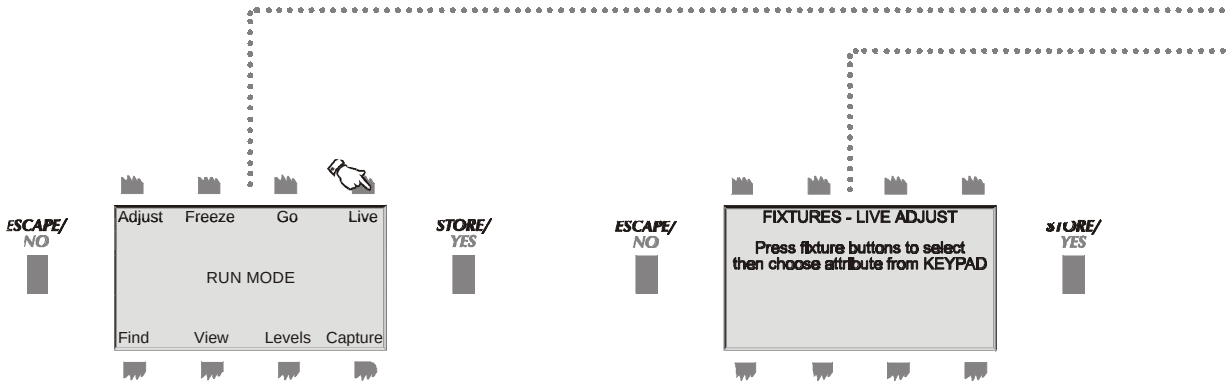
1. The speed of a chase.

2. The speed, dim level, clock/audio and pattern of a zone.

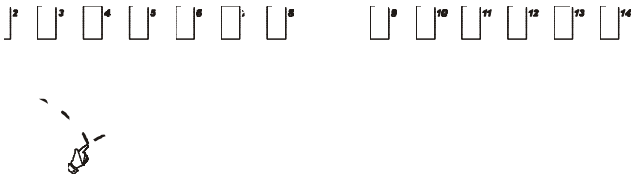
Press Adjust
Choose an output key
Adjust the attribute
Press Store when finished

LIVE

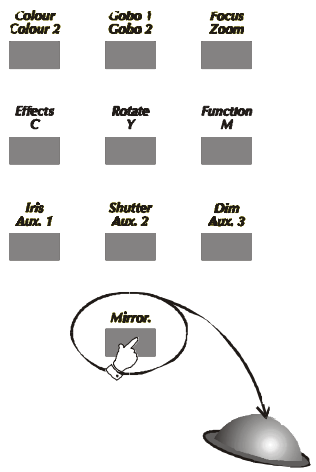
Live allows you to make changes to the attributes of intelligent fixtures while those fixtures are active. By selecting, for example, the mirror channels of moving lights, you effectively produce a follow spot.



1. Press LIVE.



2. Select the fixture(s) to use *live*.



Press Live
Choose fixture(s)
Choose an attribute
Press Escape when finished

3. Select the attribute to adjust. It becomes *live* on the trackball.

Press ESCAPE to return to RUN MODE. Any changes that you made are NOT saved. If you wish to make changes and save them during output, use ADJUST (see page 60).

MEMORY CARD TYPE

The QCommander uses a PCMCIA card, type 1, 512Kb [1Mb], SRAM. Note that there are various options
available within this specification, such as rechargeable or replaceable batteries and these will affect the price you pay.

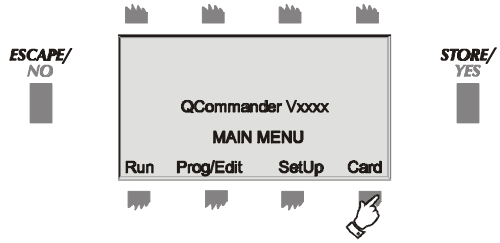
The memory cards supplied by LightProcessor are of the rechargeable type. From discharged to fully charged takes approximately 40 hrs. When despatched from our factory, cards are nominally fully charged and should be able to store data for up to eighteen months without corruption. However, we recommend that cards are recharged every six months. To charge a card, insert it in the card slot and press CARD.

The card is used to perform the following functions:-
· To store the contents of the QCommander s memory, i.e. as a backup or as longterm storage.
· To update the intelligent fixtures library.
· To update the operating system.

USING THE CARD

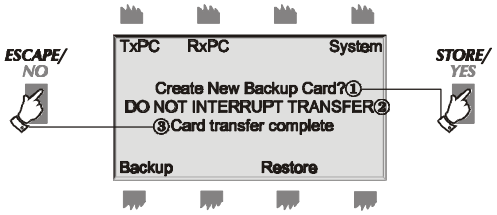
All card functions are accessed from the main menu by pressing **CARD**.

Always ensure that the card is correctly seated in its connector before attempting card operations.



FORMATTING THE CARD

A previously unused card will need to be formatted before it can receive data.



Press **Backup**.

1. 'Create new backup card?' Press **STORE/YES.**

2. Note: **'DO NOT INTERRUPT CARD TRANSFER.'**

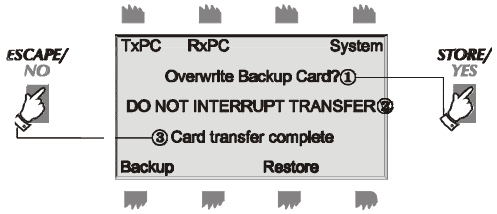
3. 'Card transfer complete.' You may now press **ESCAPE/NO** to return to the main menu.

TIP! PCMCIA card readers are available on the market. These allow the transfer of data to and from personal computers - a cheaper solution than multiple memory cards. If you have difficulty in sourcing a card reader, please contact your dealer or LightProcessor direct.

COPYING DATA TO THE CARD

Press **Backup.**

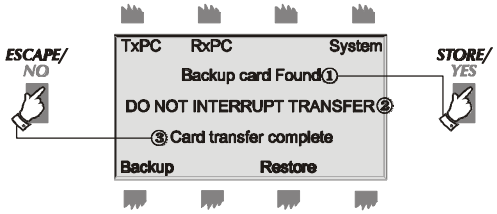
1. **'Overwrite backup card?'** Press **STORE/YES**.
2. Note: **'DO NOT INTERRUPT CARD TRANSFER.'**
3. Press **ESCAPE/NO** to return to main menu.



COPYING DATA FROM THE CARD

Press **Restore**.

1. **'Backup card Found'** Press **STORE/YES**.
2. Note: **DO NOT INTERRUPT CARD TRANSFER.'**
3. **'Card transfer complete.'** Press **ESCAPE/NO** to return to main menu.



Formatting a card
Saving to a card
Loading from a card

NOTES:

1. The softkeys TxPC and RxPC are inoperative on this version and may be ignored.

2. The error message Card not found indicates that the card has not been correctly inserted in the slot.

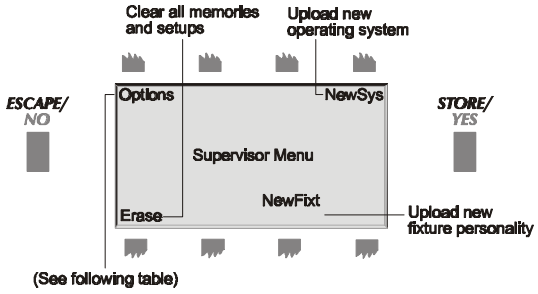
3. The error message Invalid Card Format indicates that the card has not been formatted or contains the wrong type of information, e.g. you are trying to update the operating system but the card contains a saved show.

SYSTEM SUB-MENU

The **System** sub-menu deals with:

· the uploading of an updated operating system
· the uploading of new intelligent fixture personalities
· the clearing of all setups and stored memories
· the setting of certain advanced system options

In the card menu press **System**, then follow the on-screen prompts.



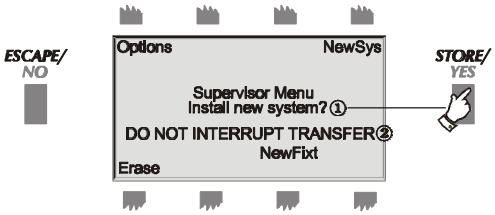
LOADING A NEW OPERATING SYSTEM

Press System. Note the message 'System Card Found' with version number and build reference.

1. Press **Newsys**.

2. 'Install new system?' Press **STORE/YES**. Note: **'DO NOT INTERRUPT TRANSFER'**.

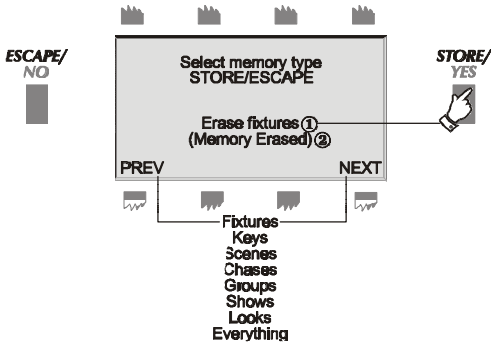
3. On completion display reverts to opening QCommanderscreen.



ERASE

Memories and set-ups may be cleared by stages, e.g. scenes, chases, et.c. 'Clear Everything' leaves only the operating system and the fixtures library in place. 'Clear Fixtures' removes the fixture assignments from buttons 1-16 but leaves the fixtures library in place.

1. Press ERASE.
2. '**REALLY CLEAR MEMORIES?**'
Press **STORE/YES**.
3. Use **PREV/NEXT** to select what to erase.
4. Press STORE. You will see the message '**Memory Erased**'.
Choose next memory to erase or press **ESCAPE** to go back through the menus.

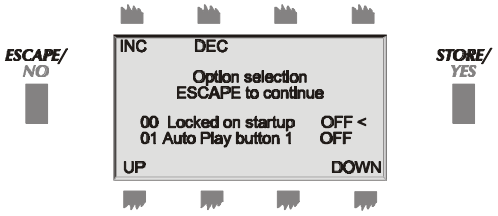


Loading new system
Loading new fixtures
Clearing memories

OPTIONS MENU

Certain configuration options are available as detailed in the table below.

1. Press **System**.
2. Press **Options**.
3. Scroll to the desired option and adjust using the trackball or the **INC/DEC** softkeys. Press **ESCAPE** when finished.



Option	Description	Default
00	Locked on startup	OFF
01	Autoplay	OFF
02	Language	001
03	Card Fixture Transfer	ON
04	Card Scene Transfer	ON
05	Card Key Transfer	ON
06	Card Chase Transfer	ON
07	Card Group Transfer	ON
08	Card Show Transfer	ON
09	Card Look Transfer	ON
10	Card Append Mode	ON
11	Menu Timers	OFF
12	Comms Mode	MID
13	DMX Recovery	012
14	DMX Break	033
15	Autocheck edits	ON
16	Blackout total	OFF
17	Speed as BPM	OFF
18	Send keys as MIDI	OFF
19	MIDI channel no.	0
20	MIDI omni on	OFF
21	Scenes to fadeout	OFF
22	Install SYS & FIXT	OFF
23	Auto repeat SHOWS	OFF
24	Offer lamp strike	OFF
25	Auto lamp strike	OFF
26	Pre-show blackout	ON
27	Autoplay button	0
28	Enable capture	OFF
29	MIDI Tx/Rx Offset	

00. Locked on startup. Default OFF. disabled.

01. Auto Play. Default OFF. This is designed to offer a warm start facility. When enabled it means that a Look (see

enabled.

if no softkey is pressed. Note that if ALL memories are erased via the
Card - System - Erase series of commands, menu timers revert to OFF. Check.

12. Comms. Mode. Default MIDI.

13. DMX Recovery. Default 012.

14. DMX Break. Default 033. For use with DMX devices where signal elements are outside the standard tolerance.

15. Autocheck Edits. Default ON. Checks for programming errors and corrupt data held in memory. Details are displayed.

16. Blackout Total. Default OFF. Only channels of the type Shutter and Dimmer are affected by the operation of the Blackout switch. When Blackout Total is ON, all channels are blacked out.

17. Speed as BPM. Default OFF. Moving Zone step times are expressed in minutes/seconds/tenths per complete cycle of the zone channels. When switched ON, the run speed of zone steps is expressed in beats per minute.

18. Send keys as MIDI. Default ON. Must be enabled for MIDI communication.

19. MIDI Channel No. Default 000. Sets a specific MIDI receive channel.

20. MIDI Omni On. Default OFF. When set to ON, the QCommander receives on all MIDI channels 0-15.

21. Scenes to Fadeout. Default OFF. Fade-out times on static scenes are ignored as they could clash with fade-in times on subsequent scenes.

22. Install SYS & FIXT. Default OFF. Selection of NewSys updates the operating system only and NewFixt updates the fixtures library only. When set to ON, both the operating system and the fixture library will be updated by the command sequence Card - System - NewSys.

23. Auto Repeat Shows. Default OFF. When played back a show runs once only. Shows may be set to run in a continuous loop by setting this option ON.

24. Offer Lamp Strike. Default OFF. Some intelligent fixtures require that the lamp is specifically switched on before they may be used. If set to ON, the display prompts you on power-up after the opening QCommander display- Strike fixture lamps. STORE: Strike, ESC: Cancel. Lamp channels must be programmed into scene no. 496. Pressing STORE to activate lamp strike calls scene 496.

25. Auto Lamp Strike. Default OFF. Some intelligent fixtures require that the lamp is specifically switched on before they may be used. Set to ON to make this operation automatic. If set to ON, the display shows Striking Lamps on power-up after the opening QCommander display.Lamp channels must be programmed into scene no. 496.

26. Pre-Show Blackout. Default ON. To avoid a conflict of instructions it is usual to turn off all channels called by a show just before the show starts to run. This option performs that task automatically.

27. Autoplay Key. Default 0. Any Look (stored snapshot) may be set to run automatically on power-up. This option tells the QCommander where to find that Look.

28. Enable Capture. Default = OFF. See pages 58-59.

29. MIDI Tx/Rx Offset. Default = 0. See pages 70-71. The default MIDI map starts at MIDI note 0 in push button 1 on page 1. This value may be changed using this option.

NOTES ON USING MIDI

Use option18 to enable send keys as MIDI (see page 69) if you wish to use MIDI out.

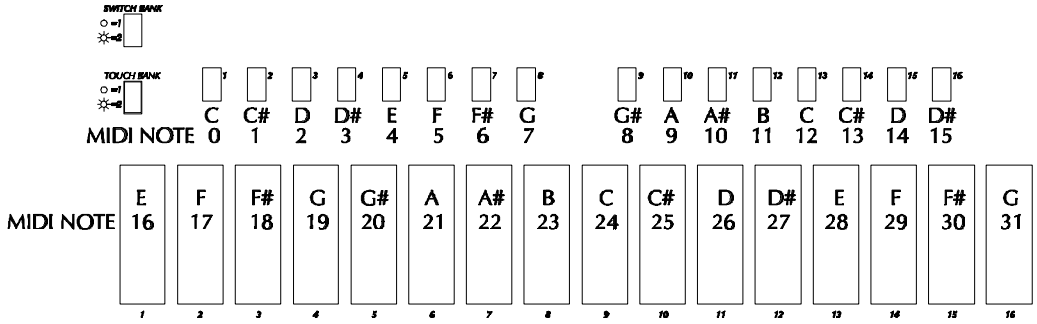
The QCommander sends MIDI OUT only on MIDI channel 0.

The QCommander can receive MIDI IN on channels 0-15. To setup the QCommander receive channel, use option 19. To setup the QCommander to receive on any MIDI channel (omni on), use option 20. See Configuration options, pages 68-9.

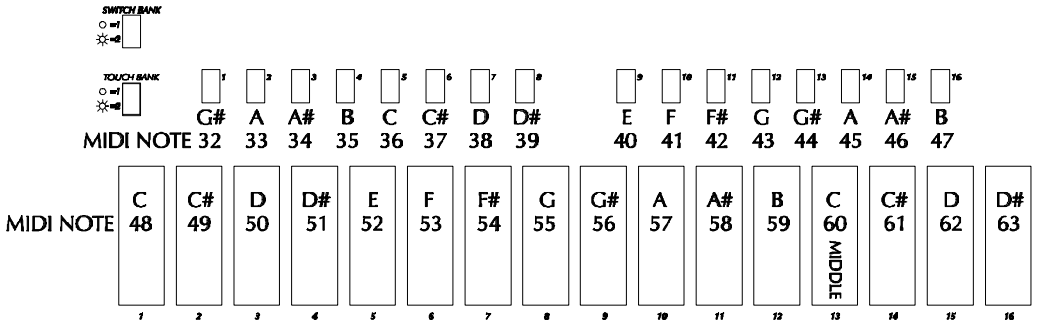
The QCommander s 64 output keys are used to send and receive MIDI. See the diagram opposite for details of send and receive music and MIDI notes.

Outputting a MIDI note by pressing a key will activate that key on any QCommander receiving MIDI on MIDI channel 0 (whatever the contents of the receiving key might be). It is therefore possible to use multiple QCommanders as a Master and Slaves.

Note that option 29, as described on page 69 allows you to offset the MIDI note map, i.e. the first button on the QCommander does not have to be note 0.


SWITCH BANK
TOUCH BANK
MIDI NOTE
C C# D D# E F F# G G# A A# B C C# D D#
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
MIDI NOTE
E F F# G G# A A# B C C# D D# E F F# G
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Page 1

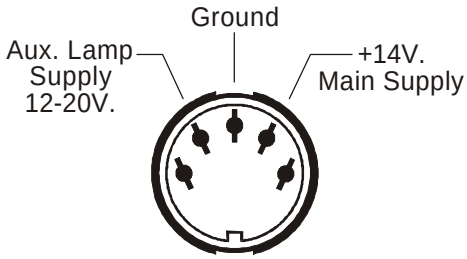

SWITCH BANK
TOUCH BANK
MIDI NOTE
G# A A# B C C# D D# E F F# G G# A A# B
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47
MIDI NOTE
C C# D D# E F F# G G# A A# B C C# D D#
48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
MIDDLE

Page 2

QCommander MIDI Note Map

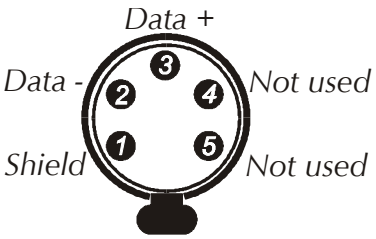
(A) POWER SUPPLY INPUT

180° 5-pin DIN, female.



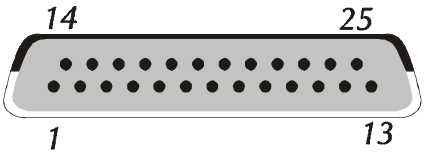
(B) DMX OUTPUT

5-pin XLR, female.



(C) AUXILIARY CONTROL INPUT

25-pin sub-D, female.



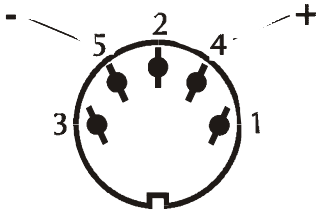
PINS 1-13, patches 13-1
PINS 25-23, patches 14-16
PINS 21-22 ground
PINS 14-15 12V out

(D) AUDIO INPUT

¼ inch mono Jack, female (male shown

(E) MIDI

MIDI in, out and through.
All 180° 5-pin DIN, female



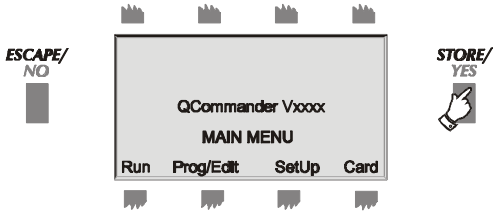
NOTE: When connecting the QCommander to accessories and /or another product, use only high-quality shielded cables.

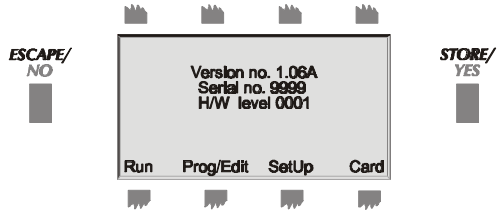
GETTING HELP

When you contact your dealer for help, please be ready to give the following information.

Software Version no.
Serial no.

To access this information, go to the main menu and press STORE/YES.





See our Worldwide Web pages for news of QCommander software updates and details of all LightProcessor products.

Contact details on the back of this manual.

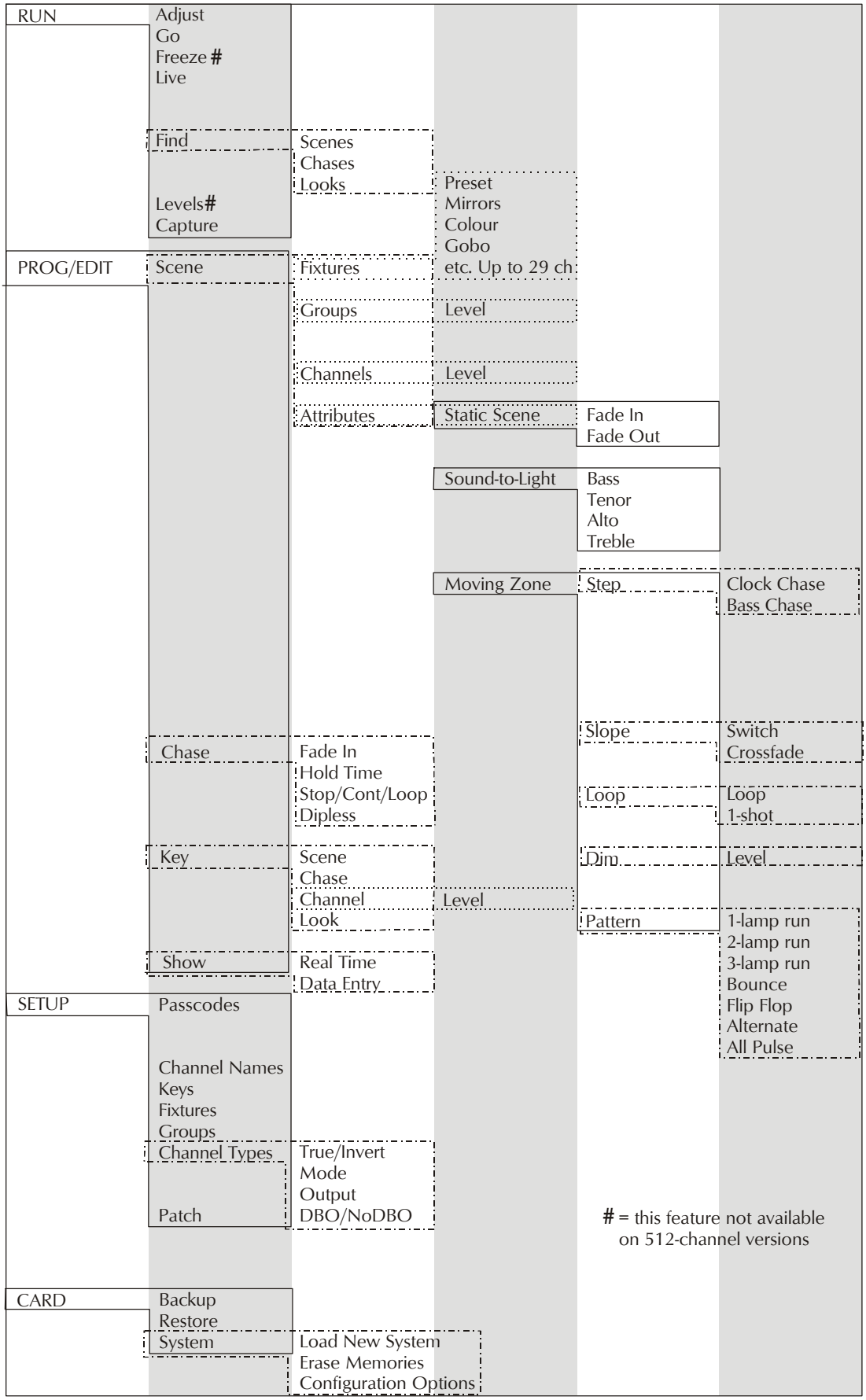
Thank you for buying LightProcessor.

Manufacturer's Name:	LightProcessor Ltd.
Manufacturer's Address:	11, Fairway Drive Greenford Middlesex UB6 8PW ENGLAND
Application of Council Directives:	CE Marking 93/68/EEC Safety LVD 73/23/EEC
Type of Equipment:	Low voltage lighting control desk
Product Name:	QCommander
Equipment referred to in this declaration first manufactured in:	September, 1996
Applicable standards:	EMC Emissions BS EN 50081-1 1992 EMC Immunity BS EN 50082-1 1992

The above is given for guidance only and should not be deemed to be a certificate of conformity.

An original certificate of conformity, specific to a serial-numbered product is available on request at a nominal charge.

MENU STRUCTURE



REPLICA QCOMMANDER MEMORY STORE AND PLAYBACK UNIT

The QCommander Replica is a partner product to LightProcessor's QCommander controller. It is designed for use in situations where further programming of the lighting is not envisaged and the requirement is exclusively to play back previously-recorded programmes, usually in a non-mobile application such as a museum or retail premises.

It is programmed via a PCMCIA card (supplied with the Replica), which has previously been used to extract the memory contents of the QCommander on which the programs were made. Once loaded, the Replica functions independently and the QCommander is no longer required. The Replica may subsequently be re-programmed in the same way.

The Replica is a 19 inch rack-mounting device, taking up one unit of rack space.

Note that the Replica is compatible only with the QCommander 256.

SPARE PARTS AND ACCESSORIES

Description	Reference
Cap, Softkey	CCD4GREY
Cap, Alphanumeric Pad Switch	QCOMMBLACK
Cap, Flash Button, 12.7mm square	Q12/Q24CAP
Cap, Output Switch/Fixture Select	QCOMMGREY
Cap, Page Select Switch	QCOMMWHITE
Switch, all pushbuttons	SM12SWITCH
Cheeks, Desk (set)	Q/CHEEK
Cheeks, Rackmount (set)	QCOMMCHEEK
Master Slider	P22KLINSLI
Knob for Slider, Plain Black	SLIDERKNOB
Knob for Slider, White Stripe	ROCKWHT/K
Blackout Switch	SPADDLE1
Trackball Assembly	TRACK-KIT
Mains Adaptor, Universal	QPSU
Memory Card PCMCIA type 1 512KB SRAM	PCMCIA/512
Memory Card PCMCIA type 1 1MB SRAM	PCMCIA/1MB
Working Light, 12"	LITTLITE12
Working Light, 18"	LITTLITE18

ALWAYS INSIST ON ORIGINAL SPARE PARTS BEING FITTED

WARRANTY STATEMENT

LightProcessor provides a warranty against manufacturing defects for all Products for a minimum period of twelve months from date of purchase, provided that the Products have not been subjected to any unauthorised modification or repair.

The liability of LightProcessor to its Customers for death or personal injury resulting from our negligence is unlimited. LightProcessor shall not be liable to the Customer by reason of any representation or any implied warranty, condition or other term or any duty at common law for any indirect, special or consequential loss or damage, costs, expenses, or other claims for compensation whatsoever which arise out of or in connection with the sale or supply of the Products or their use or resale by the Customer.

All items added to the Product by the Customer, its agents or customers, must be removed from the Product prior to return to LightProcessor. The return of the Product shall authorise LightProcessor to remove any such items. Time taken to remove them may be chargeable, even in the event that the repair is covered by this warranty. LightProcessor shall not be obliged to reconnect any such items before returning the Product. LightProcessor will not be under any liability in respect of such items.

The cost of shipping defective Product back to LightProcessor is borne by the Customer. The cost of shipping back to the Customer is borne by LightProcessor, subject to the repair being accepted as a warranty repair.

LightProcessor reserves the right either to repair or replace any defective Product.

Any unauthorised modification made to the product may invalidate this warranty and could affect the safe operation of the product.

WARRANTY REPAIRS PROCEDURE

Prior to any Product being shipped for warranty repair or replacement the Customer must have applied for a "Warranty Authorisation Number". This can be obtained from the Sales Administration Manager at LightProcessor's Head Office.

LightProcessor will then issue a 'Warranty Fault Report' that must be completed in all respects by the Customer. Failure to complete the 'Warranty Fault Report' may cause delays in processing the repair of the Product.

The completed 'Warranty Fault Report' may either be Faxed, E-Mailed, Mailed or accompany the Product when it is returned.

LightProcessor will advise the Customer within 1working day of the receipt of the Product or the Warranty Fault Report, whichever is the later, whether or not its accepts that the Product is covered under Warranty.

Warranty Repairs will be completed within 2 working days, subject to spare parts being available, and will be returned to the Customer without delay.

Should a Product be returned for repair in damaged or non-original packaging, LightProcessor reserves the right to re-package the Product in its correct packaging and to charge a re-packing fee (max. £20).

NON-WARRANTY REPAIRS PROCEDURE

Prior to any Product being shipped for repair the Customer must have applied for a "Repair Authorisation Number". These can be obtained from the Sales Administration Manager at LightProcessor's Head Office.

LightProcessor will then issue a 'Repair Fault Report' that must be completed in all respects by the Customer. Failure to complete the 'Repair Fault Report' may cause delays in processing the repair of the Product.

The completed 'Repair Fault Report' may either be Faxed, E-Mailed, Mailed or accompany the Product when it is returned.

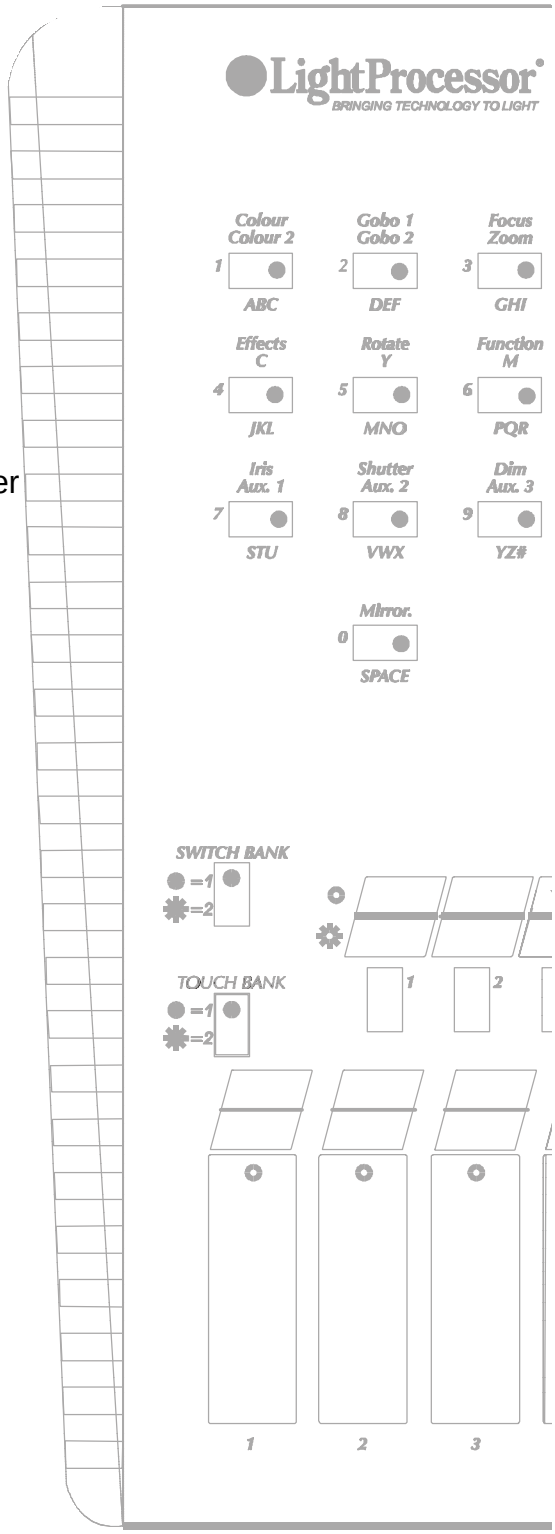
LightProcessor will advise the Customer within 5 working days of the receipt of the Product or the Repair Fault Report, whichever is the later, the Estimated Cost of Repair excluding labour and carriage, but including a minimum charge for the inspection of the product, being ¼hr. labour .

Non-Warranty Repairs will be completed within 10 working days of receipt by the Customer of the Repair Cost Estimate, subject to spare parts being available, and will be returned to the Customer without delay.

Should a Product be returned for repair in damaged or non-original packaging, LightProcessor reserves the right to re-package the Product in its correct packaging and to charge a re-packing fee (max. £20).

Also available from LightProcessor

- DMX Tools
  - QDMuX demultiplexer
  - QStore memory store and playback unit
  - QMerge DMX merge and multiplexer
  - QBuffer DMX splitter, isolator and booster
- Paradime digital dimmer range
- PowerStation 2 DMX installation dimmer
- Analogue and DMX 2-preset desks
  - Q12
  - Q24



LightProcessor®

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Note the serial numbers of the products in this installation and quote them when seeking help.